| IEC IECEE CB SCHEME | Ref. Certif. No. |
|---|---|
| | JPTUV-017200 |

**IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME**

**SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D'ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC**

# CB TEST CERTIFICATE
## *CERTIFICAT D'ESSAI OC*

| | |
|---|---|
| Product<br>Produit | LCD Monitor |
| Name and address of the applicant<br>Nom et adresse du demandeur | Lite-On Technology Corp.<br>5 Floor, 90, Chien 1 Road<br>Chung Ho, Taipei Hsien 235 Taiwan |
| Name and address of the manufacturer<br>Nom et adresse du fabricant | Acer Computer (Shanghai) Limited.<br>3F No.168 Xizang Medium Road<br>Huangpu District, Shanghai, P.R. China |
| Name and address of the factory<br>Nom et adresse de l'usine | See additional page(s) |
| Rating and principal characteristics<br>Valeurs nominales et caractéristiques principales | AC 100-240V; 50/60Hz; 1.5A; Class I |
| Trade mark (if any)<br>Marque de fabrique (si elle existe) | acer |
| Model/type Ref.<br>Ref. de type | AL2002W XXXX (X can be 0-9, A-Z or blank) |
| Additional information (if necessary)<br>Information complémentaire (si nécessaire) | For model differences, refer to the test report. |
| A sample of the product was tested and found to be in conformity with<br>Un échantillon de ce produit a été essayé et a été considéré conforme à la | IEC 60950-1:2001<br>National differences see test report |
| As shown in the Test Report Ref. No.which forms part of this Certificate<br>Comme indiqué dans le Rapport d'essais numéro de référence qui constitue une partie de ce Certificat | 11009010 001 |

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme National de Certification

TÜV **TÜV Rheinland Group**

TÜV Rheinland Japan Ltd.
Shin Yokohama Daini Center Bldg.
3-19-5, Shin Yokohama, Kohoku-ku
Yokohama 222-0033 Japan
Phone + 81 45 470-1850
Fax + 81 45 473-5221
Mail: info@jpn.tuv.com
Web: www.tuv.com

Date: 17.11.2006

Signature: Dipl.-Ing. W. Hsu

1. Lite-On Computer Technology
   (Dong Guan) Co., Ltd.
   N. San Heng Rd.,Heng Jiao Ind. Zone
   Xi Chen Zone, Shi Jie Town
   Dongguan, Guangdong, P.R. China

2. Dongguan shijie yuanli
   electronics factory
   Heng Jiao Ind. Zone
   Shi Jie Town, Dong Guan City
   Guang Dong Province, P.R. China

**Additional information (if necessary)**
**Information complémentaire (si nécessaire)**

Date: 17.11.2006 Signature: Dipl.-Ing. W. Hsu

# TEST REPORT

## IEC 60950-1 and/or EN 60950-1

## Information technology equipment – Safety – Part 1: General requirements

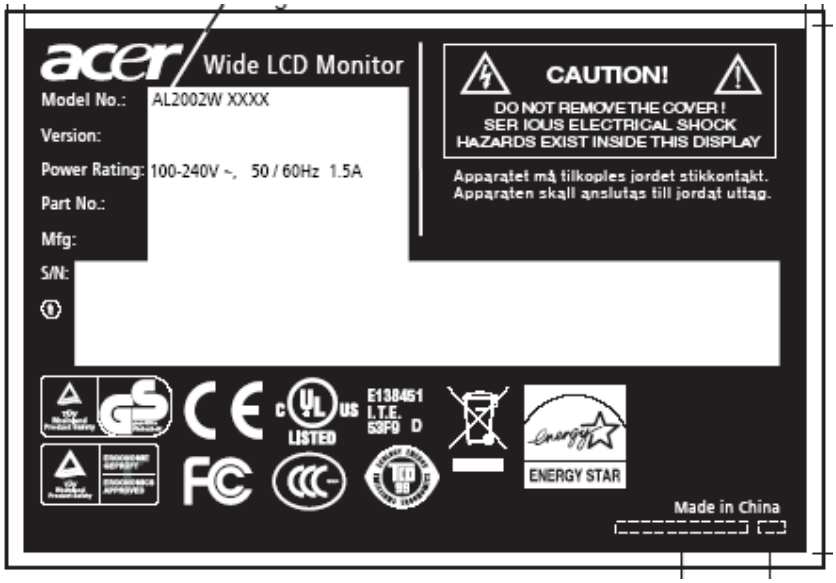
| | |
|---|---|
| **Report reference No** ..... | 11009010 001 |
| Tested by (printed name and signature) ..... | John W.H. Chuang |
| Approved by (printed name and signature) ..... | ROBERT KONG |
| Date of issue ..... | Nov. 16, 2006 |
| **Testing Laboratory Name** ..... | TÜV Rheinland Taiwan, Taichung Laboratory |
| Address ..... | 10F, No. 219, Min-Chuan Road, Taichung 403, Taiwan |
| Testing location ..... | CBTL ☒ CCATL ☐ SMT ☐ TMP ☐ |
| Address ..... | Same as above |
| **Applicant's Name** ..... | Lite-On Technology Corp. |
| Address ..... | 5 Floor, 90, Chien 1 Road, Chung Ho, Taipei Hsien 235 Taiwan |
| **Test specification** | |
| Standard ..... | IEC 60950-1:2001<br>EN 60950-1:2001 + A11:2004 |
| Test procedure ..... | CB-scheme |
| Non-standard test method ..... | N/A |
| **Test Report Form No**. ..... | IECEN60950_1B |
| TRF originator ..... | SGS Fimko Ltd |
| Master TRF ..... | dated 2003-03 |

Copyright © 2003 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

| | |
|---|---|
| **Test item description** ..... | LCD Monitor |
| Trademark ..... | acer |
| Manufacturer ..... | Acer Computer (Shanghai) Limited.<br>3F, No. 168 Xizang Medium Road, Huangpu District, Shanghai, P. R. China |
| Model and/or type reference ..... | AL2002W XXXX (X can be 0-9, A-Z or blank) |
| Serial number ..... | Pre-production samples without serial numbers |
| Rating(s) ..... | 100-240V~, 50/60Hz, 1.5A |

**Copy of marking plate:**




**Summary of testing:**

- The maximum normal load condition of unit as below:
  1) For unit consist power supply with DC/AC inverter board type PTB-1725:
  - for plastic enclosure shape type C: Operation with full brightness, max. contrast of the LCD backlight circuit, max. volume of speaker and dummy load of 2.5W for four USB ports (series A receptacle).
  - for plastic enclosure shape type A: Operation with full brightness, max. contrast of the LCD backlight circuit and max. volume of speaker.
  2) For unit consist power supply with DC/AC inverter board type PTB-1806:
  For plastic enclosure shape type B: Operation with full brightness, max. contrast of the LCD backlight circuit and max. volume of speaker.
- The ambient was specified as 40°C by manufacture.
- This unit complied with stability test (sub-clause 4.1) for each enclosure shape (type A, B, C).
- The USB ports (for unit with plastic enclosure shape type C and consist with power supply with DC/AC inverter board type PTB-1725), output (+20.5Vdc output) of power supply with DC/AC inverter board (type PTB-1806) and main board output (type A: P308 output connector to key control board and P306 output connector to speaker; type B: P307 output connector to key control baord and P310 output connector to speaker) were complied with the limited power source (sub-clause 2.5).

**Particulars: test item vs. test requirements**

| | |
|---|---|
| Equipment mobility | Movable equipment |
| Operating condition | Continuous |
| Mains supply tolerance (%) | +10% / -10% |
| Tested for IT power systems | Yes (Norway) |
| IT testing, phase-phase voltage (V) | IT, 230V for Norway |
| Class of equipment | Class I |
| Mass of equipment (kg) | max. 5.9 |
| Protection against ingress of water | IPX0 |

**Test case verdicts**

| | |
|---|---|
| Test case does not apply to the test object | N/A |
| Test item does meet the requirement | P(ass) |
| Test item does not meet the requirement | F(ail) |

**Testing**

| | |
|---|---|
| Date of receipt of test item | Nov., 2006 |
| Date(s) of performance of test | Nov., 2006 |

**General remarks**

**"This report is not valid as a CB Test Report unless appended by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02".**

The test result presented in this report relate only to the object(s) tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

Throughout this report a point is used as the decimal separator.

**Comments:**

Summary of compliance with National Differences (for explanation of codes see below):
AR, AT, AU, BE, CH, DE, DK, FI, FR, GB, GR, HU, IL, IN, IT, KR, MY, NL, NO, PL, SE, SG, SI

AR=Argentina, AT=Austria, AU=Australia, BE=Belgium, CA=Canada, CH=Switzerland, CN=China, DE=Germany, DK=Denmark, FI=Finland, FR=France, GB=United Kingdom, GR=Greece, HU=Hungary, IL=Israel, IN=India, IT=Italy, KE=Kenya, KR=Korea, MY=Malaysia, NL=The Netherlands, NO=Norway, PL=Poland, SE=Sweden, SG=Singapore, SI=Slovenia, SK=Slovakia, US=United States of America.

For National Differences see end of this test report.

Factories:

1) Lite-On Computer Technology (Dong Guan) Co., Ltd.

N. San Heng Rd., Heng Jiao Ind. Zone, Xi Chen Zone, Shi Jie Town, Dongguan, Guangdong, P.R. China

2) Dongguan shijie yuanli electronics factory

Heng Jiao Ind. Zone, Shi Jie Town, Dong Guan City, Guang Dong Province, P.R. China

Definition of variables:

| Variable: | Range of variable: | Content: |
|---|---|---|
| X | Can be 0-9, A-Z or blank | Marketing purpose, no technical differences. |
| | | |

**General product information:**

The equipment model AL2002W XXXX (X can be 0-9, A-Z or blank, trade mark: “acer”) is a 20” LCD Monitor for the use in information technology equipment.

This equipment consists of following critical components:

- TFT LCD panel module
- Metal enclosure (inside the plastic enclosure, covering the switching power supply with DC/AC inverter board and function control board)
- Building-in type switching power supply with DC/AC inverter board (refer to appended table 1.5.1 for source details)
- Secondary function control board (as main board, SELV circuit; with one DVI and D-sub port)
- Plastic enclosure
- Key control board (as SELV circuits)

For unit construction deviation details, refer to below information

1). Plastic enclosure shape type A consist with following parts:
   - Switching power supply with DC/AC inverter board type PTB-1725
   - Metal enclosure shape type A
   - Main board type A

2). Plastic enclosure shape type B consist with following parts:
   - Switching power supply with DC/AC inverter board type PTB-1806
   - Metal enclosure shape type B
   - Main board type B

3). Plastic enclosure shape type C consist with following parts:
   - Switching power supply with DC/AC inverter board type PTB-1725
   - Metal enclosure shape type A
   - Main board type B
   - USB board

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 1 | GENERAL | | **P** |
| 1.5 | Components | | **P** |
| 1.5.1 | General | See below. | **P** |
| | Comply with IEC 60950 or relevant component standard | (see appended table 1.5.1) | **P** |
| 1.5.2 | Evaluation and testing of components | Components, which are certified to IEC and/or national standards, are used correctly within their ratings or had been evaluated during this approval. | **P** |
| 1.5.3 | Thermal controls | No thermal controls provided. | **N/A** |
| 1.5.4 | Transformers | Transformer used is suitable for the intended application and complies with the relevant requirements of the standard and particularly with those of Annex C. | **P** |
| 1.5.5 | Interconnecting cables | Interconnection cable provided with the equipment is carrying signals on energy level below 240VA.<br>Besides for the insulation materials there are not other requirements for the interconnection cables. | **P** |
| 1.5.6 | Capacitors in primary circuits .....: | Between lines: X2 sub-class capacitor according to IEC 60384-14:1993 with 21 days damp heat test.<br>Between Line/Neutral to earth: Y2 or Y1 sub-class capacitor according to IEC 60384-14:1993. | **P** |
| 1.5.7 | Double insulation or reinforced insulation bridged by components | No such components used. | **N/A** |
| 1.5.7.1 | General | See above. | **N/A** |
| 1.5.7.2 | Bridging capacitors | See above. | **N/A** |
| 1.5.7.3 | Bridging resistors | See above. | **N/A** |
| 1.5.7.4 | Accessible parts | See above. | **N/A** |
| 1.5.8 | Components in equipment for IT power systems | Y1 or Y2 subclass capacitors according to IEC 60384-14:1993 provided between phase and earth are rated 250Vac min. | **P** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 1.6 | Power interface | | **P** |
| 1.6.1 | AC power distribution systems | TN power system considered. IT power system for Norway. | **P** |
| 1.6.2 | Input current | (see appended table 1.6.2) | **P** |
| 1.6.3 | Voltage limit of hand-held equipment | This appliance is not a hand-held equipment. | **N/A** |
| 1.6.4 | Neutral conductor | The neutral is not identified in the equipment. Basic insulation for rated voltage between earthed parts and primary phases. | **P** |

| | | | |
|---|---|---|---|
| 1.7 | Marking and instructions | | **P** |
| 1.7.1 | Power rating | See below. | **P** |
| | Rated voltage(s) or voltage range(s) (V) .....: | 100-240V~ | **P** |
| | Symbol for nature of supply, for d.c. only .....: | AC mains only. | **N/A** |
| | Rated frequency or rated frequency range (Hz) ..: | 50/60Hz | **P** |
| | Rated current (mA or A) .....: | 1.5A | **P** |
| | Manufacturer's name or trademark or identification mark .....: | Acer | **P** |
| | Type/model or type reference.....: | AL2002W XXXX (X can be 0-9, A-Z or blank) | **P** |
| | Symbol for Class II equipment only .....: | Class I equipment. | **N/A** |
| | Other symbols .....: | Other symbols do not give rise to misunderstanding. | **P** |
| | Certification marks .....: | See copy of the marking plates for the safety marks. | **N/A** |
| 1.7.2 | Safety instructions | User's manual provided. | **P** |
| 1.7.3 | Short duty cycles | Equipment is designed for continuous operation. | **N/A** |
| 1.7.4 | Supply voltage adjustment .....: | Full range circuit design. | **N/A** |
| | Methods and means of adjustment; reference to installation instructions .....: | No such supply voltage adjustment. | **N/A** |
| 1.7.5 | Power outlets on the equipment .....: | No standard power outlets provided. | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 1.7.6 | Fuse identification (marking, special fusing characteristics, cross-reference) .....: | Fuse marking label adjacent to the fuse holder on PCB:<br>F801 T3.15AH 250V<br>CAUTION: FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE REPLACE ONLY WITH SAME TYPE AND RATINGS OF FUSE. | **P** |
| 1.7.7 | Wiring terminals | See below. | **P** |
| 1.7.7.1 | Protective earthing and bonding terminals .....: | Appliance inlet is provided. The symbol 60417-1-IEC-5019 was located on PCB. | **P** |
| 1.7.7.2 | Terminal for a.c. mains supply conductors | The equipment is provided with appliance inlet, which is for connection of a detachable type power supply cord. | **N/A** |
| 1.7.7.3 | Terminals for d.c. mains supply conductors | No such conductors. | **N/A** |
| 1.7.8 | Controls and indicators | See below. | **P** |
| 1.7.8.1 | Identification, location and marking .....: | The marking and indication of the stand-by switch is located that indication of function is clearly. | **P** |
| 1.7.8.2 | Colours .....: | The colours of the Power LED indicator are as follows:<br>- Green for ON condition<br>- Amber for stand-by condition | **P** |
| 1.7.8.3 | Symbols according to IEC 60417 .....: | Marking according 60417-1-IEC- 5009 (line half inside circle) for stand-by switch. | **P** |
| 1.7.8.4 | Markings using figures .....: | No indicators for different positions of control. | **N/A** |
| 1.7.9 | Isolation of multiple power sources .....: | Single power source only. | **N/A** |
| 1.7.10 | IT power distribution systems | For Norway compliance has to be evaluated during the national approved. | **N/A** |
| 1.7.11 | Thermostats and other regulating devices | Neither thermostats nor other regulating devices provided. | **N/A** |
| 1.7.12 | Language(s) .....: | User's manual provided in English and German. Marking label provided in English. Versions in other languages will be provided during national approval. | — |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 1.7.13 | Durability | The marking plate was subjected to the permanence of marking test. The marking plate was rubbed with cloth soaked with water for 15 s and then again for 15 s with the cloth soaked with petroleum spirit.<br>After this test there was no damage to the marking. The marking on the label did not fade. There was no curling of the marking. | **P** |
| 1.7.14 | Removable parts | No removable parts provided. | **N/A** |
| 1.7.15 | Replaceable batteries | No batteries provided. | **N/A** |
| | Language(s).....: | | — |
| 1.7.16 | Operator access with a tool .....: | There are no any operator accessible areas with a tool defined. | **N/A** |
| 1.7.17 | Equipment for restricted access locations.....: | No restricted access locations. | **N/A** |

| | | | |
|---|---|---|---|
| 2 | PROTECTION FROM HAZARDS | | **P** |
| 2.1 | Protection from electric shock and energy hazards | | **P** |
| 2.1.1 | Protection in operator access areas | No hazards (electrical shock or energy hazards) in operator accessible areas. | **P** |
| 2.1.1.1 | Access to energized parts | See sub clause 2.1.1 | **P** |
| | Test by inspection .....: | No access with test finger to any parts with only basic insulation to ELV or hazardous voltage. Any hazardous parts accessible are unlikely. | **P** |
| | Test with test finger .....: | See above. | **P** |
| | Test with test pin .....: | See above. | **P** |
| | Test with test probe .....: | No TNV circuit. | **N/A** |
| 2.1.1.2 | Battery compartments .....: | No battery compartments provided. | **N/A** |
| 2.1.1.3 | Access to ELV wiring | No ELV wiring in operator access area. | **N/A** |
| | Working voltage (Vpeak or Vrms); minimum distance (mm) through insulation | | — |
| 2.1.1.4 | Access to hazardous voltage circuit wiring | No hazardous voltage circuit in operator access area. | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 2.1.1.5 | Energy hazards .....: | Energy does not exceed 240 VA between any two points at accessible parts. | **P** |
| 2.1.1.6 | Manual controls | No conductive shafts of operating knobs and handles. | **N/A** |
| 2.1.1.7 | Discharge of capacitors in equipment | No risk of electric shock. | **P** |
| | Time-constant (s); measured voltage (V) .....: | (See appended table) | — |
| 2.1.2 | Protection in service access areas | No maintenance works in operation mode necessary. | **N/A** |
| 2.1.3 | Protection in restricted access locations | The unit is not limited to be used in restricted access locations. | **N/A** |
| 2.2 | SELV circuits | | **P** |
| 2.2.1 | General requirements | See below. | **P** |
| 2.2.2 | Voltages under normal conditions (V) .....: | Between any conductor of the SELV circuits, 42.4Vpeak or 60Vd.c. are not exceeded. Result see appended table 2.2.2. | **P** |
| 2.2.3 | Voltages under fault conditions (V).....: | Single fault did not cause excessive voltage in SELV circuits. The limits of 71Vpeak and 120Vd.c. were not exceed. Furthermore, the SELV limits (see sub clause 2.2.2) were not exceeded for longer than 0.2 seconds. Results see appended tables 2.2.2 and 2.2.3. | **P** |
| 2.2.3.1 | Separation by double insulation or reinforced insulation (method 1) | Method 1 used. | **P** |
| 2.2.3.2 | Separation by earthed screen (method 2) | Method 2 used. | **P** |
| 2.2.3.3 | Protection by earthing of the SELV circuit (method 3) | | **N/A** |
| 2.2.4 | Connection of SELV circuits to other circuits.....: | See sub clause 2.2.2, 2.2.3. and 2.4. | **P** |
| 2.3 | TNV circuits | | **N/A** |
| 2.3.1 | Limits | | **N/A** |
| | Type of TNV circuits .....: | | — |
| 2.3.2 | Separation from other circuits and from accessible parts | | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | Insulation employed.....: | | — |
| 2.3.3 | Separation from hazardous voltages | | **N/A** |
| | Insulation employed.....: | | — |
| 2.3.4 | Connection of TNV circuits to other circuits | | **N/A** |
| | Insulation employed.....: | | — |
| 2.3.5 | Test for operating voltages generated externally | | **N/A** |

| | | | |
|---|---|---|---|
| 2.4 | Limited current circuits | | **P** |
| 2.4.1 | General requirements | Considered for output of DC/AC inverter. | **P** |
| 2.4.2 | Limit values | See appended table 2.4.2. | **P** |
| | Frequency (Hz).....: | See appended table 2.4.2. | — |
| | Measured current (mA).....: | The peak drop voltage was measured with an oscilloscope at a 2kΩ non-inductive resistor. Results see appended table 2.4.2. | — |
| | Measured voltage (V).....: | 1) 1.36kV (for power supply with DC/AC inverter board type PTB-1725)<br>2) 3.34kV (for power supply with DC/AC inverter board type PTB-1725) | — |
| | Measured capacitance (μF).....: | 1) 22pF (for power supply with DC/AC inverter board type PTB-1725)<br>2) 10pF (for power supply with DC/AC inverter board type PTB-1725) | — |
| 2.4.3 | Connection of limited current circuits to other circuits | Complies. | **P** |

| | | | |
|---|---|---|---|
| 2.5 | Limited power sources<br>*For power supply with DC/AC inverter board type PTB-1806: +20.5Vdc output of power supply with DC/AC inverter board and P310/P307 output connectors of main board type B were complied with L.P.S test.*<br>*For main board types A, which consist with power supply with DC/AC inverter board type PTB-1725, P308/P306 output connectors were complied with L.P.S test.*<br>*For USB ports, which consist with power supply with DC/AC inverter board type PTB-1725, also were complied with L.P.S test.* | | **P** |
| | Inherently limited output | | **N/A** |
| | Impedance limited output | | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | Overcurrent protective device limited output | | **N/A** |
| | Regulating network limited output under normal operating and single fault condition | For USB ports, +20.5Vdc output of power supply with DC/AC inverter board (type PTB-1806), P308/P306 output connector (main board type A) and P310/P307 output connector (main board type B) were complied. See appended table for test result. | **P** |
| | Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition | | **N/A** |
| | Output voltage (V), output current (A), apparent power (VA).....: | Results see appended table 2.5. | — |
| | Current rating of overcurrent protective device (A) | | — |

| | | | |
|---|---|---|---|
| 2.6 | Provisions for earthing and bonding | | **P** |
| 2.6.1 | Protective earthing | Appliance inlet (with PE pin) reliable connection to PCB and also with screw to metal enclosure.<br>One protective bonding conductor (green/yellow wire) connected to the approved appliance inlet (hooked and soldered) and to the PCB via solder pin and soldered. | **P** |
| 2.6.2 | Functional earthing | Secondary functional earthing is separated to primary by double or reinforce insulation or by basic insulation and protective earthing. No green/yellow wire used for functional earthing. | **P** |
| 2.6.3 | Protective earthing and protective bonding conductors | See below. | **P** |
| 2.6.3.1 | General | No power supply cord provided. See sub clause 2.6.3.4. | **P** |
| 2.6.3.2 | Size of protective earthing conductors | No power cord provided. | **N/A** |
| | Rated current (A), cross-sectional area ($mm^2$), AWG.....: | | — |
| 2.6.3.3 | Size of protective bonding conductors | Evaluation by test. Rated current below 16A. | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | Rated current (A), cross-sectional area ($mm^2$), AWG .....: | | — |
| 2.6.3.4 | Resistance (Ω) of earthing conductors and their terminations, test current (A) .....: | (Refer to appended table 2.6.3.4). | **P** |
| 2.6.3.5 | Colour of insulation .....: | The insulation of the protective bonding conductor is green/yellow wire. | **P** |
| 2.6.4 | Terminals | See below. | **P** |
| 2.6.4.1 | General | See sub clause 2.6.1. | **P** |
| 2.6.4.2 | Protective earthing and bonding terminals | The earth terminal of appliance inlet is considered as the protective earthing terminal and was evaluated by sub clause 2.6.3.4. | **P** |
| | Rated current (A), type and nominal thread diameter (mm) .....: | Evaluation by test. Rated current below 16A. | — |
| 2.6.4.3 | Separation of the protective earthing conductor from protective bonding conductors | Only protective earthing conductor used in this equipment. | **N/A** |
| 2.6.5 | Integrity of protective earthing | See below. | **P** |
| 2.6.5.1 | Interconnection of equipment | This unit has it's own earthing connection. Any other units connected via the output shall be provided SELV only. | **P** |
| 2.6.5.2 | Components in protective earthing conductors and protective bonding conductors | No switch or overcurrent protective device in protective earthing or bonding conductor. | **P** |
| 2.6.5.3 | Disconnection of protective earth | Appliance inlet provided as disconnection device. | **P** |
| 2.6.5.4 | Parts that can be removed by an operator | Plug or inlet, the earth connection is made before and broken after the hazardous voltage. No other operator removable parts provided. | **P** |
| 2.6.5.5 | Parts removed during servicing | It is not necessary to disconnect the earth connection except for the removing of the earthed part itself. | **P** |
| 2.6.5.6 | Corrosion resistance | All safety earthing connections in compliance with Annex J. | **P** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 2.6.5.7 | Screws for protective bonding | Only ISO thread screw used in metal chassis for protective bonding. Metal thickness at least twice the pitch of the screw.<br>No self-tapping or spaced thread screws. | **N/A** |
| 2.6.5.8 | Reliance on telecommunication network or cable distribution system | No TNV circuits provided. | **N/A** |
| 2.7 | Overcurrent and earth fault protection in primary circuits | | **P** |
| 2.7.1 | Basic requirements | Equipment relies on or circuit breaker of the wall outlet installation protection of the building installation in regard to L to N short circuit and earth fault. Over current protection is provided by one built-in fuse. | **P** |
| | Instructions when protection relies on building installation | Pluggable equipment type A. | **N/A** |
| 2.7.2 | Faults not covered in 5.3 | The protection devices are well dimensioned and mounted. | **P** |
| 2.7.3 | Short-circuit backup protection | Pluggable equipment type A, the building installation is considered as providing short circuit backup protection. | **P** |
| 2.7.4 | Number and location of protective devices .....: | One built-in fuse provided on the mains conductor. | **P** |
| 2.7.5 | Protection by several devices | One fuse provided. | **N/A** |
| 2.7.6 | Warning to service personnel.....: | No service work necessary. | **N/A** |
| 2.8 | Safety interlocks | | **N/A** |
| 2.8.1 | General principles | | **N/A** |
| 2.8.2 | Protection requirements | | **N/A** |
| 2.8.3 | Inadvertent reactivation | | **N/A** |
| 2.8.4 | Fail-safe operation | | **N/A** |
| 2.8.5 | Moving parts | | **N/A** |
| 2.8.6 | Overriding | | **N/A** |
| 2.8.7 | Switches and relays | | **N/A** |
| 2.8.7.1 | Contact gaps (mm) .....: | | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 2.8.7.2 | Overload test | | **N/A** |
| 2.8.7.3 | Endurance test | | **N/A** |
| 2.8.7.4 | Electric strength test | | **N/A** |
| 2.8.8 | Mechanical actuators | | **N/A** |
| 2.9 | Electrical insulation | | **P** |
| 2.9.1 | Properties of insulating materials | Natural rubber, asbestos or hygroscopic materials are not used. | **P** |
| 2.9.2 | Humidity conditioning | Carried out for 120 hrs. | **P** |
| | Humidity (%) .....: | 95% R.H. | — |
| | Temperature (°C) .....: | 40°C | — |
| 2.9.3 | Grade of insulation | Adequate levels of safety insulation were provided and maintained to comply with the requirements of this standard. | **P** |
| 2.10 | Clearances, creepage distances and distances through insulation | | **P** |
| 2.10.1 | General | See below. | **P** |
| 2.10.2 | Determination of working voltage | The rms and the peak voltages were measured for the unit.<br>The unit was connected to a 240V TN power system.<br>Results see appended table 2.10.2. | **P** |
| 2.10.3 | Clearances | See below, Annex G was not considered. | **P** |
| 2.10.3.1 | General | Annex F and minimum clearances considered. | **P** |
| 2.10.3.2 | Clearances in primary circuits | (see appended table 2.10.3 and 2.10.4) | **P** |
| 2.10.3.3 | Clearances in secondary circuits | Sub clause 5.3.4 considered. | **N/A** |
| 2.10.3.4 | Measurement of transient voltage levels | Normal transient voltage considered (overvoltage category II for primary circuits). | **N/A** |
| 2.10.4 | Creepage distances | (see appended table 2.10.3 and 2.10.4) | **P** |
| | CTI tests .....: | CTI rating for all materials of min. 100, see appended table C.2 for details. | — |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 2.10.5 | Solid insulation | See below. | **P** |
| 2.10.5.1 | Minimum distance through insulation | (see appended table 2.10.5) | **P** |
| 2.10.5.2 | Thin sheet material | The thin sheet materials of polyester tape used in transformer T801. | **P** |
| | Number of layers (pcs) .....: | 3 layers. | — |
| | Electric strength test | (see appended table 5.2) | — |
| 2.10.5.3 | Printed boards | | **N/A** |
| | Distance through insulation | | **N/A** |
| | Electric strength test for thin sheet insulating material | | — |
| | Number of layers (pcs) .....: | | **N/A** |
| 2.10.5.4 | Wound components | | **N/A** |
| | Number of layers (pcs) .....: | | **N/A** |
| | Two wires in contact inside wound component; angle between 45° and 90° .....: | | **N/A** |
| 2.10.6 | Coated printed boards | No coated printed boards. | **N/A** |
| 2.10.6.1 | General | | **N/A** |
| 2.10.6.2 | Sample preparation and preliminary inspection | | **N/A** |
| 2.10.6.3 | Thermal cycling | | **N/A** |
| 2.10.6.4 | Thermal ageing (°C) .....: | | **N/A** |
| 2.10.6.5 | Electric strength test | | — |
| 2.10.6.6 | Abrasion resistance test | | **N/A** |
| | Electric strength test | | — |
| 2.10.7 | Enclosed and sealed parts .....: | No hermetically sealed components. | **N/A** |
| | Temperature T1=T2 + Tma – Tamb +10K (°C)....: | | **N/A** |
| 2.10.8 | Spacings filled by insulating compound.....: | Certified photo-couplers used. No other components applied for. | **P** |
| | Electric strength test | | — |
| 2.10.9 | Component external terminations | See appended table 2.10.3 and 2.10.4. | **P** |
| 2.10.10 | Insulation with varying dimensions | No reduction of distances considered. | **N/A** |

| | | |
|---|---|---|
| 3 | WIRING, CONNECTIONS AND SUPPLY | **P** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 3.1 | General | | **P** |
| 3.1.1 | Current rating and overcurrent protection | All internal wires are UL recognized wiring, which is PVC insulated, rated VW-1, min. 80°C, 300V. Internal wiring gauge is suitable for current intended to be carried. | **P** |
| 3.1.2 | Protection against mechanical damage | Wires do not touch sharp edges and heatsinks, which could damage the insulation. | **P** |
| 3.1.3 | Securing of internal wiring | Internal wires are secured by solder, cable tie or other mechenical connect so that a loosening of the terminal connection is unlikely. | **P** |
| 3.1.4 | Insulation of conductors | The insulation of the individual conductors is suitable for the application and the working voltage. For the insulation material see 3.1.1. | **P** |
| 3.1.5 | Beads and ceramic insulators | Not used. | **N/A** |
| 3.1.6 | Screws for electrical contact pressure | No electrical contact pressure by screwed connection. | **N/A** |
| 3.1.7 | Insulating materials in electrical connections | All current carrying connections made by metal to metal. | **P** |
| 3.1.8 | Self-tapping and spaced thread screws | No self-tapping or spaced thread screws used. | **N/A** |
| 3.1.9 | Termination of conductors | All conductors are reliably secured by solder-pin or glued or other mechanical fixing means. | **P** |
| | 10 N pull test | Complied. | **P** |
| 3.1.10 | Sleeving on wiring | No sleeving used as supplementary insulation function. | **N/A** |

| | | | |
|---|---|---|---|
| 3.2 | Connection to an a.c. mains supply or a d.c. mains supply | | **P** |
| 3.2.1 | Means of connection .....: | See below. | **P** |
| 3.2.1.1 | Connection to an a.c. mains supply | Appliance inlet used. | **P** |
| 3.2.1.2 | Connection to a d.c. mains supply | Only AC mains supply. | **N/A** |
| 3.2.2 | Multiple supply connections | Only one mains connection. | **N/A** |
| 3.2.3 | Permanently connected equipment | Not permanently connected equipment. | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | Number of conductors, diameter (mm) of cable and conduits .....: | | — |
| 3.2.4 | Appliance inlets | The appliance inlet complies with IEC 60320-1. The power cord can be inserted without difficulties and does not support the unit. | **P** |
| 3.2.5 | Power supply cords | Not provided. | **N/A** |
| 3.2.5.1 | AC power supply cords | Not provided. | **N/A** |
| | Type.....: | | — |
| | Rated current (A), cross-sectional area ($mm^2$), AWG.....: | | — |
| 3.2.5.2 | DC power supply cords | Not connect to DC mains. | **N/A** |
| 3.2.6 | Cord anchorages and strain relief | No non-detachable power supply cords provided. | **N/A** |
| | Mass of equipment (kg), pull (N) .....: | | — |
| | Longitudinal displacement (mm) .....: | | — |
| 3.2.7 | Protection against mechanical damage | No parts under this unit likely to damage the power supply cords. Enclosure without sharp edges. | **P** |
| 3.2.8 | Cord guards | No cord guard provided. | **N/A** |
| | D (mm); test mass (g) .....: | | — |
| | Radius of curvature of cord (mm).....: | | — |
| 3.2.9 | Supply wiring space | Not permanently connected and without non-detachable power supply cord. | **N/A** |

| | | | |
|---|---|---|---|
| 3.3 | Wiring terminals for connection of external conductors<br>*Neither permanently connected nor non-detachable equipment.* | | **N/A** |
| 3.3.1 | Wiring terminals | | **N/A** |
| 3.3.2 | Connection of non-detachable power supply cords | | **N/A** |
| 3.3.3 | Screw terminals | | **N/A** |
| 3.3.4 | Conductor sizes to be connected | | **N/A** |
| | Rated current (A), cord/cable type, cross-sectional area (mm2).....: | | — |
| 3.3.5 | Wiring terminal sizes | | **N/A** |
| | Rated current (A), type and nominal thread diameter (mm) .....: | | — |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 3.3.6 | Wiring terminals design | | **N/A** |
| 3.3.7 | Grouping of wiring terminals | | **N/A** |
| 3.3.8 | Stranded wire | | **N/A** |
| 3.4 | Disconnection from the mains supply | | **P** |
| 3.4.1 | General requirement | See below. | **P** |
| 3.4.2 | Disconnect devices | Appliance inlet used as disconnect divice. | **P** |
| 3.4.3 | Permanently connected equipment | Not permanently connected equipment. | **N/A** |
| 3.4.4 | Parts which remain energized | When the power cord is removed from the inlet no remaining parts with hazardous voltage in the equipment. | **P** |
| 3.4.5 | Switches in flexible cords | No power supply cords provided. | **N/A** |
| 3.4.6 | Single-phase equipment and d.c. equipment | Both poles are disconnected simultaneously. | **P** |
| 3.4.7 | Three-phase equipment | Single-phase equipment. | **N/A** |
| 3.4.8 | Switches as disconnect devices | See sub clause 3.4.2. | **N/A** |
| 3.4.9 | Plugs as disconnect devices | See sub clause 3.4.2. | **N/A** |
| 3.4.10 | Interconnected equipment | Interconnection of the power supply to the other PCBs in the equipment by secondary output cable only. | **N/A** |
| 3.4.11 | Multiple power sources | Only one supply connection provided. | **N/A** |
| 3.5 | Interconnection of equipment | | **P** |
| 3.5.1 | General requirements | See below. | **P** |
| 3.5.2 | Types of interconnection circuits .....: | Interconnection circuits of SELV through the connector. | **P** |
| 3.5.3 | ELV circuits as interconnection circuits | No ELV interconnection. | **N/A** |
| 4 | PHYSICAL REQUIREMENTS | | **P** |
| 4.1 | Stability | | **P** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | Angle of 10° | The equipment does not overbalance when tilted to 10 degrees (for all type of base stand). | **P** |
| | Test: force (N).....: | Equipment is not a floor standing unit. | **N/A** |
| 4.2 | Mechanical strength | | **P** |
| 4.2.1 | General | See below. After the tests, the equipment complies with the requirements of sub-clauses 2.1.1, 2.6.1 and 2.10. | **P** |
| 4.2.2 | Steady force test, 10 N | 10N applied to components other than parts serving as an enclosure. | **P** |
| 4.2.3 | Steady force test, 30 N | | **N/A** |
| 4.2.4 | Steady force test, 250 N | 250N applied to internal metal enclosure at top, side, bottom and rear. No energy or other hazards. | **P** |
| 4.2.5 | Impact test | No hazard as result from steel ball impact test for plastic enclosure. | **P** |
| | Fall test | See above. | **P** |
| | Swing test | See above. | **P** |
| 4.2.6 | Drop test | | **N/A** |
| 4.2.7 | Stress relief test | After the test at temperature of 70.4°C for plastic enclosure, no shrinkage, distortion or loosening of any enclosure part was noticeable on the equipment for all plastic enclosure materials. | **P** |
| 4.2.8 | Cathode ray tubes | No CRT provided. | **N/A** |
| | Picture tube separately certified .....: | | **N/A** |
| 4.2.9 | High pressure lamps | No high pressure lamps provided. | **N/A** |
| 4.2.10 | Wall or ceiling mounted equipment; force (N) .....: | Equipment is not a wall or ceiling mounted equipment. | **N/A** |
| 4.3 | Design and construction | | **P** |
| 4.3.1 | Edges and corners | The edges and corners are rounded and smoothed. | **P** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 4.3.2 | Handles and manual controls; force (N).....: | None, which could cause hazards. | **N/A** |
| 4.3.3 | Adjustable controls | No safety relevant adjustable controls provided. | **N/A** |
| 4.3.4 | Securing of parts | Electrical and mechanical connections can be expected to withstand usual mechanical stress. No loosening of clearance or creepage impairing distances likely to occur. | **P** |
| 4.3.5 | Connection of plugs and sockets | No mismatch of connectors, plugs or socket possible. | **P** |
| 4.3.6 | Direct plug-in equipment | Not direct plug-in type. | **N/A** |
| | Dimensions (mm) of mains plug for direct plug-in : | | **N/A** |
| | Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N).....: | | **N/A** |
| 4.3.7 | Heating elements in earthed equipment | No heating elements. | **N/A** |
| 4.3.8 | Batteries | No batteries provided. | **N/A** |
| 4.3.9 | Oil and grease | No oil or grease inside the equipment. | **N/A** |
| 4.3.10 | Dust, powders, liquids and gases | Equipment intended use not considered to be exposed to these. | **N/A** |
| 4.3.11 | Containers for liquids or gases | No container for liquid or gas. | **N/A** |
| 4.3.12 | Flammable liquids.....: | No flammable liquid. | **N/A** |
| | Quantity of liquid (l).....: | | **N/A** |
| | Flash point (°C).....: | | **N/A** |
| 4.3.13 | Radiation; type of radiation .....: | See below. | **P** |
| 4.3.13.1 | General | No radiation is generated inside the equipment. The energy of the indicator LED is far below the limit for Class 1 LED products. | **P** |
| 4.3.13.2 | Ionizing radiation | | **N/A** |
| | Measured radiation (pA/kg) .....: | | — |
| | Measured high-voltage (kV) .....: | | — |
| | Measured focus voltage (kV) .....: | | — |
| | CRT markings .....: | | — |
| 4.3.13.3 | Effect of ultraviolet (UV) radiation on materials | | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | Part, property, retention after test, flammability classification .....: | | **N/A** |
| 4.3.13.4 | Human exposure to ultraviolet (UV) radiation .....: | | **N/A** |
| 4.3.13.5 | Laser (including LEDs) | No ionizing radiation or laser or flammable liquids presents. LED power is far below LED Class 1 limit. | **P** |
| | Laser class .....: | See above. | — |
| 4.3.13.6 | Other types .....: | Not used. | **N/A** |
| 4.4 | Protection against hazardous moving parts | | **N/A** |
| 4.4.1 | General | | **N/A** |
| 4.4.2 | Protection in operator access areas | | **N/A** |
| 4.4.3 | Protection in restricted access locations | | **N/A** |
| 4.4.4 | Protection in service access areas | | **N/A** |
| 4.5 | Thermal requirements | | **P** |
| 4.5.1 | Maximum temperatures | (see appended table 4.5.1) | **P** |
| | Normal load condition per Annex L.....: | Considered. | **P** |
| 4.5.2 | Resistance to abnormal heat | Phenolic materials used in where parts at hazardous voltage are directly mounted on. Phenolic is accepted without further testing. Others see appended table. | **P** |
| 4.6 | Openings in enclosures | | **P** |
| 4.6.1 | Top and side openings | See below. | **P** |
| | Dimensions (mm) .....: | (see appended table) | — |
| 4.6.2 | Bottoms of fire enclosures | See below. | **P** |
| | Construction of the bottom .....: | (see appended table) | — |
| 4.6.3 | Doors or covers in fire enclosures | No doors or covers provided. | **N/A** |
| 4.6.4 | Openings in transportable equipment | Equipment not transportable type. | **N/A** |
| 4.6.5 | Adhesives for constructional purposes | No adhesives used. | **N/A** |
| | Conditioning temperature (°C)/time (weeks) .....: | | — |
| 4.7 | Resistance to fire | | **P** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 4.7.1 | Reducing the risk of ignition and spread of flame | See below. | **P** |
| | Method 1, selection and application of components wiring and materials | Materials with suitable flammability classes are used. | **P** |
| | Method 2, application of all of simulated fault condition tests | Not used. | **N/A** |
| 4.7.2 | Conditions for a fire enclosure | See below. | **P** |
| 4.7.2.1 | Parts requiring a fire enclosure | Fire enclosure is required if at least one of the following is provided:<br>● components in primary<br>● components in secondary (not supplied by LPS)<br>● insulated wiring<br>Fire enclosure is required. | **P** |
| 4.7.2.2 | Parts not requiring a fire enclosure | Key control board and speaker were supplied by limited power source and components were mounted on V-1 PCB which outside the metal enclosure. | **P** |
| 4.7.3 | Materials | | **P** |
| 4.7.3.1 | General | PCB rated accordingly. For details see table 1.5.1. | **P** |
| 4.7.3.2 | Materials for fire enclosures | Internal metal enclosure was considered as fire enclosure. | **P** |
| 4.7.3.3 | Materials for components and other parts outside fire enclosures | The other part (base stand) outside of fire enclosure used material rated HB or better. | **P** |
| 4.7.3.4 | Materials for components and other parts inside fire enclosures | Internal components except small parts are V-2 or better. | **P** |
| 4.7.3.5 | Materials for air filter assemblies | No air filters provided. | **N/A** |
| 4.7.3.6 | Materials used in high-voltage components | No high voltage components provided. | **N/A** |

| | | | |
|---|---|---|---|
| 5 | ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS | | **P** |
| 5.1 | Touch current and protective conductor current | | **P** |
| 5.1.1 | General | See sub-clauses 5.1.2 to 5.1.6. | **P** |
| 5.1.2 | Equipment under test (EUT) | EUT has only one mains connection. | **P** |
| 5.1.3 | Test circuit | Equipment of figure 5A used. | **P** |
| 5.1.4 | Application of measuring instrument | See appended table 5.1.6. | **P** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 5.1.5 | Test procedure | The touch current was measured from mains to metal enclosure, output connector and plastic enclosures with metal foil. | **P** |
| 5.1.6 | Test measurements | See appended table 5.1.6. | **P** |
| | Test voltage (V) .....: | See above. | — |
| | Measured touch current (mA) .....: | See above. | — |
| | Max. allowed touch current (mA) .....: | See above. | — |
| | Measured protective conductor current (mA) .....: | | — |
| | Max. allowed protective conductor current (mA) .: | | — |
| 5.1.7 | Equipment with touch current exceeding 3.5 mA : | Touch current does not exceed 3.5mA. | **N/A** |
| 5.1.8 | Touch currents to and from telecommunication networks and cable distribution systems and from telecommunication networks | No TNV circuit connection. | **N/A** |
| 5.1.8.1 | Limitation of the touch current to a telecommunication network and a cable distribution system | | **N/A** |
| | Test voltage (V) .....: | | — |
| | Measured touch current (mA) .....: | | — |
| | Max. allowed touch current (mA) .....: | | — |
| 5.1.8.2 | Summation of touch currents from telecommunication networks .....: | No TNV circuit connection. | **N/A** |

| | | | |
|---|---|---|---|
| 5.2 | Electric strength | | **P** |
| 5.2.1 | General | (see appended table 5.2) | **P** |
| 5.2.2 | Test procedure | (see appended table 5.2) | **P** |

| | | | |
|---|---|---|---|
| 5.3 | Abnormal operating and fault conditions | | **P** |
| 5.3.1 | Protection against overload and abnormal operation | See below. | **P** |
| 5.3.2 | Motors | No motors used. | **N/A** |
| 5.3.3 | Transformers | With the overload and shorted output of the transformer, no high temperature of the transformer was recorded.<br>Results of the overload and short-circuit tests see appended table 5.3 and Annex C. | **P** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 5.3.4 | Functional insulation.....: | Method c). Test results see appended table 5.3. | **P** |
| 5.3.5 | Electromechanical components | No electromechanical component provided. | **N/A** |
| 5.3.6 | Simulation of faults | Ventilation blocked: Results see appended table.<br>Short and open circuit test for power supply board. Result see appended table. | **P** |
| 5.3.7 | Unattended equipment | None of the listed components was provided. | **N/A** |
| 5.3.8 | Compliance criteria for abnormal operating and fault conditions | No fire occurs. No molten metal was emitted. Electric strength tests primary to secondary and primary to earth were passed. | **P** |
| 6 | CONNECTION TO TELECOMMUNICATION NETWORKS | | **N/A** |
| 6.1 | Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment | | **N/A** |
| 6.1.1 | Protection from hazardous voltages | | **N/A** |
| 6.1.2 | Separation of the telecommunication network from earth | | **N/A** |
| 6.1.2.1 | Requirements | | **N/A** |
| | Test voltage (V) .....: | | — |
| | Current in the test circuit (mA) .....: | | — |
| 6.1.2.2 | Exclusions.....: | | **N/A** |
| 6.2 | Protection of equipment users from overvoltages on telecommunication networks | | **N/A** |
| 6.2.1 | Separation requirements | | **N/A** |
| 6.2.2 | Electric strength test procedure | | **N/A** |
| 6.2.2.1 | Impulse test | | **N/A** |
| 6.2.2.2 | Steady-state test | | **N/A** |
| 6.2.2.3 | Compliance criteria | | **N/A** |
| 6.3 | Protection of the telecommunication wiring system from overheating | | **N/A** |
| | Max. output current (A).....: | | — |
| | Current limiting method .....: | | — |
| 7 | CONNECTION TO CABLE DISTRIBUTION SYSTEMS | | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 7.1 | Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment | | **N/A** |
| 7.2 | Protection of equipment users from overvoltages on the cable distribution system | | **N/A** |
| 7.3 | Insulation between primary circuits and cable distribution systems | | **N/A** |
| 7.3.1 | General | | **N/A** |
| 7.3.2 | Voltage surge test | | **N/A** |
| 7.3.3 | Impulse test | | **N/A** |

| | | | |
|---|---|---|---|
| A | ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE | | **N/A** |
| A.1 | Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2) | | **N/A** |
| A.1.1 | Samples.....: | | — |
| | Wall thickness (mm).....: | | — |
| A.1.2 | Conditioning of samples; temperature (°C) .....: | | **N/A** |
| A.1.3 | Mounting of samples .....: | | **N/A** |
| A.1.4 | Test flame (see IEC 60695-11-3) | | **N/A** |
| | Flame A, B, C or D .....: | | — |
| A.1.5 | Test procedure | | **N/A** |
| A.1.6 | Compliance criteria | | **N/A** |
| | Sample 1 burning time (s) .....: | | — |
| | Sample 2 burning time (s) .....: | | — |
| | Sample 3 burning time (s) .....: | | — |
| A.2 | Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4) | | **N/A** |
| A.2.1 | Samples, material.....: | | — |
| | Wall thickness (mm).....: | | — |
| A.2.2 | Conditioning of samples | | **N/A** |
| A.2.3 | Mounting of samples .....: | | **N/A** |
| A.2.4 | Test flame (see IEC 60695-11-4) | | **N/A** |
| | Flame A, B or C .....: | | — |
| A.2.5 | Test procedure | | **N/A** |
| A.2.6 | Compliance criteria | | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | Sample 1 burning time (s) .....: | | — |
| | Sample 2 burning time (s) .....: | | — |
| | Sample 3 burning time (s) .....: | | — |
| A.2.7 | Alternative test acc. to IEC 60695-2-2, cl. 4 and 8 | | **N/A** |
| | Sample 1 burning time (s) .....: | | — |
| | Sample 2 burning time (s) .....: | | — |
| | Sample 3 burning time (s) .....: | | — |
| A.3 | Hot flaming oil test (see 4.6.2) | | **N/A** |
| A.3.1 | Mounting of samples | | **N/A** |
| A.3.2 | Test procedure | | **N/A** |
| A.3.3 | Compliance criterion | | **N/A** |

| | | | |
|---|---|---|---|
| B | ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2) | | **N/A** |
| B.1 | General requirements | | **N/A** |
| | Position .....: | | — |
| | Manufacturer .....: | | — |
| | Type .....: | | — |
| | Rated values .....: | | — |
| B.2 | Test conditions | | **N/A** |
| B.3 | Maximum temperatures | | **N/A** |
| B.4 | Running overload test | | **N/A** |
| B.5 | Locked-rotor overload test | | **N/A** |
| | Test duration (days) .....: | | — |
| | Electric strength test: test voltage (V) .....: | | — |
| B.6 | Running overload test for d.c. motors in secondary circuits | | **N/A** |
| B.7 | Locked-rotor overload test for d.c. motors in secondary circuits | | **N/A** |
| B.7.1 | Test procedure | | **N/A** |
| B.7.2 | Alternative test procedure; test time (h).....: | | **N/A** |
| B.7.3 | Electric strength test | | **N/A** |
| B.8 | Test for motors with capacitors | | **N/A** |
| B.9 | Test for three-phase motors | | **N/A** |
| B.10 | Test for series motors | | **N/A** |
| | Operating voltage (V) .....: | | — |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| C | ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3) | | **P** |
| | Position .....: | T801 | — |
| | Manufacturer .....: | (see appended table C.2) | — |
| | Type .....: | (see appended table C.2) | — |
| | Rated values .....: | Class B | — |
| | Method of protection.....: | By the circuit design. | — |
| C.1 | Overload test | (see appended table 5.3) | **P** |
| C.2 | Insulation | (see appended table C.2) | **P** |
| | Protection from displacement of windings.....: | By additional insulation tape. | **P** |
| D | ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4) | | **P** |
| D.1 | Measuring instrument | See sub clause 5.1.3 and 5.1.4 | **P** |
| D.2 | Alternative measuring instrument | | **N/A** |
| E | ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13) | | **N/A** |
| F | ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10) | | **P** |
| G | ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES | | **N/A** |
| G.1 | Summary of the procedure for determining minimum clearances | | **N/A** |
| G.2 | Determination of mains transient voltage (V) .....: | | **N/A** |
| G.2.1 | AC mains supply | | **N/A** |
| G.2.2 | DC mains supply | | **N/A** |
| G.3 | Determination of telecommunication network transient voltage (V).....: | | **N/A** |
| G.4 | Determination of required withstand voltage (V)...: | | **N/A** |
| G.5 | Measurement of transient levels (V).....: | | **N/A** |
| G.6 | Determination of minimum clearances.....: | | **N/A** |
| H | ANNEX H, IONIZING RADIATION (see 4.3.13) | | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| J | ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6) | | **P** |
| | Metal used .....: | Complied. | — |
| K | ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.7) | | **N/A** |
| K.1 | Making and breaking capacity | | **N/A** |
| K.2 | Thermostat reliability; operating voltage (V) .....: | | **N/A** |
| K.3 | Thermostat endurance test; operating voltage (V) .....: | | **N/A** |
| K.4 | Temperature limiter endurance; operating voltage (V) .....: | | **N/A** |
| K.5 | Thermal cut-out reliability | | **N/A** |
| K.6 | Stability of operation | | **N/A** |
| L | ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1) | | **P** |
| L.1 | Typewriters | | **N/A** |
| L.2 | Adding machines and cash registers | | **N/A** |
| L.3 | Erasers | | **N/A** |
| L.4 | Pencil sharpeners | | **N/A** |
| L.5 | Duplicators and copy machines | | **N/A** |
| L.6 | Motor-operated files | | **N/A** |
| L.7 | Other business equipment | See sub clause 1.6.2. | **P** |
| M | ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1) | | **N/A** |
| M.1 | Introduction | | **N/A** |
| M.2 | Method A | | **N/A** |
| M.3 | Method B | | **N/A** |
| M.3.1 | Ringing signal | | **N/A** |
| M.3.1.1 | Frequency (Hz) .....: | | — |
| M.3.1.2 | Voltage (V) .....: | | — |
| M.3.1.3 | Cadence; time (s), voltage (V) .....: | | — |
| M.3.1.4 | Single fault current (mA).....: | | — |
| M.3.2 | Tripping device and monitoring voltage.....: | | **N/A** |
| M.3.2.1 | Conditions for use of a tripping device or a monitoring voltage | | **N/A** |
| M.3.2.2 | Tripping device | | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| M.3.2.3 | Monitoring voltage (V).....: | | **N/A** |
| N | ANNEX N, IMPULSE TEST GENERATORS (see 2.10.3.4, 6.2.2.1, 7.3.2 and clause G.5) | | **N/A** |
| N.1 | ITU-T impulse test generators | | **N/A** |
| N.2 | IEC 60065 impulse test generator | | **N/A** |
| P | ANNEX P, NORMATIVE REFERENCES | | **P** |
| Q | ANNEX Q, BIBLIOGRAPHY | | **P** |
| R | ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES | | **N/A** |
| R.1 | Minimum separation distances for unpopulated coated printed boards (see 2.10.6) | | **N/A** |
| R.2 | Reduced clearances (see 2.10.3) | | **N/A** |
| S | ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3) | | **N/A** |
| S.1 | Test equipment | | **N/A** |
| S.2 | Test procedure | | **N/A** |
| S.3 | Examples of waveforms during impulse testing | | **N/A** |
| T | ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2) | | **N/A** |
| | | | — |
| U | ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4) | | **N/A** |
| | | | — |
| V | ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1) | | **P** |
| V.1 | Introduction | See below. | **P** |
| V.2 | TN power distribution systems | Single-phase TN power system considered and used for testing. | **P** |
| V.3 | TT power systems | Not considered. | **N/A** |
| V.4 | IT power systems | IT power system for Norway. | **P** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| W | ANNEX W, SUMMATION OF TOUCH CURRENTS | | **N/A** |
| W.1 | Touch current from electronic circuits | | **N/A** |
| W.1.2 | Earthed circuits | | **N/A** |
| W.2 | Interconnection of several equipments | | **N/A** |
| W.2.1 | Isolation | | **N/A** |
| W.2.2 | Common return, isolated from earth | | **N/A** |
| W.2.3 | Common return, connected to protective earth | | **N/A** |
| X | ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1) | | **N/A** |
| X.1 | Determination of maximum input current | | **N/A** |
| X.2 | Overload test procedure | | **N/A** |
| Y | ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3) | | **N/A** |
| Y.1 | Test apparatus .....: | | **N/A** |
| Y.2 | Mounting of test samples .....: | | **N/A** |
| Y.3 | Carbon-arc light-exposure apparatus .....: | | **N/A** |
| Y.4 | Xenon-arc light exposure apparatus .....: | | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| CENELEC COMMON MODIFICATIONS [C],<br>SPECIAL NATIONAL CONDITIONS [S] AND A-DEVIATIONS (NATIONAL DEVIATIONS) [A]<br>(EN 60950-1:2001, Annex ZB and Annex ZC) | | | **P** |
| General | C: Delete all the "country" notes in the reference document according to the following list:<br>1.1.5 Note 2, 1.5.8 Note 2, 1.6.1 Note<br>1.7.2 Note 4, 1.7.12 Note 2, 2.6 Note<br>2.2.3 Note, 2.2.4 Note, 2.3.2 Note 2, 7, 8<br>2.3.3 Note 1, 2, 2.3.4 Note 2,3, 2.7.1 Note<br>2.10.3.1 Note 4, 3.2.1.1 Note, 3.2.3 Note 1, 2<br>3.2.5.1 Note 2, 4.3.6 Note 1,2, 4.7.2.2 Note<br>4.7.3.1 Note 2, 6.1.2.1 Note, 6.1.2.2 Note<br>6.2.2 Note, 6.2.2.1 Note 2, 6.2.2.2 Note<br>7 Note 4, 7.1 Note<br>G2.1 Note 1, 2, Annex H Note 2 | Deleted. | **P** |
| 1.2.4.1 | S (DK): Certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets. | No power supply cord provided. | **N/A** |
| 1.5.1 | A (SE, Ordinance 1990:944 and<br>CH, Ordinance on environmentally hazardous substances SR 814.013, Annex 3.2, Mercury):<br>Add NOTE – Switches containing mercury such as thermostats, relays and level controllers are not allowed. | No such switches used. | **N/A** |
| 1.5.8 | S (NO): Due to the IT power system used (see annex V, Fig. V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V). | Considered. | **P** |
| 1.7.2 | S (FI, NO, SE): CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet.<br>The marking text in the applicable countries shall be as follows: | Should be evaluated during national approval. | **N/A** |
| | FI: "Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan" | See above. | **N/A** |
| | NO: "Apparatet må tilkoples jordet stikkontakt" | See above. | **N/A** |
| | SE: "Apparaten skall anslutas till jordat uttag" | See above. | **N/A** |
| | A (DK, Heavy Current Regulations): Supply cords of class I equipment, which is delivered without a plug, must be provided with a visible tag with the following text:<br>Vigtigt!<br>Lederen med grøn/gul isolation må kun tilsluttes en klemme mærket | See above. | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | eller <br>If essential for the safety of the equipment, the tag must in addition be provided with a diagram which shows the connection of the other conductors, or be provided with the following text: "For tilslutning af de øvrige ledere, se medfølgende instalationsvejledning." | | |
| 1.7.5 | S (DK): Socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For stationary equipment the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a. | No socket-outlets provided. | **N/A** |
| 1.7.5 | A (DK, Heavy Current Regulations):<br>CLASS II EQUIPMENT shall not be fitted with socket-outlets for providing power to other equipment. | Class I equipment. | **N/A** |
| 1.7.12 | A (DE, Gesetz über technische Arbeitsmittel (Gerätesicherheitsgesetz) [Law on technical labour equipment {Equipment safety law}], of 23rd October 1992, Article 3, 3rd paragraph, 2nd sentence, together with the "Allgemeine Verwaltungsvorschrift zur Durchführung des Zweiten Abschnitts des Gerätesicherheitsgesetzes" [General administrative regulation on the execution of the Second Section of the Equipment safety law], of 10th January 1996, article 2, 4th paragraph item 2):<br>Directions for use with rules to prevent certain hazards for (among others) maintenance of the technical labour equipment, also for imported technical labour equipment shall be written in the German language.<br>NOTE: Of this requirement, rules for use even only by service personnel are not exempted. | German user's manual provided. | **P** |
| 1.7.15 | A (CH, Ordinance on environmentally hazardous substances SR 814.013):<br>Annex 4.10 of SR 814.013 applies for batteries. | No battries provided. | **N/A** |
| | A (DE, Regulation on protection against hazards by X-ray, of 8th January 1987, Article 5 [Operation of X-ray emission source], clauses 1 to 4):<br>a) A licence is required by those who operate an X-ray emission source.<br>b) A licence in accordance with Cl. 1 is not required by those who operate an X-ray emission source on which the electron acceleration voltage does not exceed 20 kV if<br>1) the local dose rate at a distance of 0,1 m from the surface does not exceed 1 µSv/h and | This national difference was deleted by A11 of EN 60950-1. | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | 2) it is adequately indicated on the X-ray emission source that<br>i) X-rays are generated and<br>ii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer.<br>c) A licence in accordance with Cl. 1 is also not required by persons who operate an X-ray emission source on which the electron acceleration voltage exceeds 20 kV if<br>1) the X-ray emission source has been granted a type approval and<br>2) it is adequately indicated on the X-ray emission source that<br>i) X-rays are generated<br>ii) the device stipulated by the manufacturer or importer guarantees that the maximum permissible local dose rate in accordance with the type approval is not exceeded and<br>iii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer.<br>d) Furthermore, a licence in accordance with Cl. 1 is also not required by persons who operate X-ray emission sources on which the electron acceleration voltage does not exceed 30 kV if<br>1) the X-rays are generated only by intrinsically safe CRTs complying with Enclosure III, No. 6,<br>2) the values stipulated in accordance with Enclosure III, No. 6.2 are limited by technical measures and specified in the device and<br>3) it is adequately indicated on the X-ray emission source that the X-rays generated are adequately screened by the intrinsically safe CRT. | | |
| 2.2.4 | S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply. | No TNV circuits. | **N/A** |
| 2.3.2 | S (NO): Requirements according to this annex, 6.1.2.1 apply. | No TNV circuits. | **N/A** |
| 2.3.3 and 2.3.4 | S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply. | No TNV circuits. | **N/A** |
| 2.6.3.3 | S (GB): The current rating of the circuit shall be taken as 13 A, not 16 A. | Considered. | **N/A** |
| 2.7.1 | C: Replace the subclause as follows:<br>*Basic requirements*<br>To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as | Replaced. | **P** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c):<br>a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment;<br>b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;<br>c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.<br>If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet. | | |
| | S (GB): To protect against excessive currents and short-circuits in the PRIMARY CIRCUIT OF DIRECT PLUG-IN EQUIPMENT, protective device shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT. | Equipment is not direct plug-in equipment. | **N/A** |
| 2.7.2 | C: Void. | Declared. | **N/A** |
| 2.10.2 | C: Replace in the first line "(see also 1.4.7)" by "(see also 1.4.8)". | Replaced. | **P** |
| 2.10.3.1 | S (NO): Due to the IT power distribution system used (see annex V, Fig. V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage and will remain at 230 V in case of a single earth fault | Considered. | **P** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 3.2.1.1 | S (CH): Supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets:<br>SEV 6532-2.1991, Plug type 15, 3P+N+PE 250/400 V, 10 A<br>SEV 6533-2.1991, Plug type 11, L+N 250 V, 10 A<br>SEV 6534-2.1991, Plug type 12, L+N+PE 250 V, 10 A<br>In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998:<br>SEV 5932-2.1998, Plug type 25, 3L+N+PE 230/400 V, 16 A<br>SEV 5933-2.1998, Plug type 21, L+N 250 V, 16 A<br>SEV 5934-2.1998, Plug type 23, L+N+PE 250 V, 16 A | No power supply cord provided. | **N/A** |
| | S (DK): Supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1.<br>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.<br>If ply-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2. | No power supply cord provided. | **N/A** |
| | S (ES): Supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994.<br>Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993.<br>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994.<br>If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2. | No power supply cord provided. | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | S (GB): Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 – The Plugs and Socket etc. (Safety) Regulations 1994, unless exempted by those regulations.<br>NOTE – 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug. | No power supply cord provided. | **N/A** |
| | S (IE): Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 – National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997. | No power supply cord provided. | **N/A** |
| 3.2.3 | C: Delete Note 1 and in Table 3A, delete the conduit sizes in parentheses. | Deleted. | **N/A** |
| 3.2.5.1 | C: Replace<br>"60245 IEC 53" by "H05 RR-F";<br>"60227 IEC 52" by "H03 VV-F or H03 VVH2-F";<br>"60227 IEC 53" by "H05 VV-F or H05 VVH2-F2".<br>In Table 3B, replace the first four lines by the following:<br>Up to and including 6 0,75[1)]<br>Over 6 up to and including 10 (0,75)[2)] 1,0<br>Over 10 up to and including 16 (1,0)[3)] 1,5<br>In the Conditions applicable to Table 3B delete the words "in some countries" in condition [1)].<br>In Note 1, applicable to Table 3B, delete the second sentence. | Replaced. | **N/A** |
| 3.2.5.1 | S (GB): A power supply cord with conductor of 1,25 $mm^2$ is allowed for equipment with a rated current over 10 A and up to and including 13 A. | No power supply cord provided. | **N/A** |
| 3.3.4 | C: In table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following:<br>"Over 10 up to and including 16 1,5 to 2,5 1,5 to 4"<br>Delete the fifth line: conductor sizes for 13 to 16 A. | Deleted. | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| 3.3.4 | S (GB): The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is:<br>- 1,25 $mm^2$ to 1,5 $mm^2$ nominal cross-sectional area. | No power supply cord provided. | **N/A** |
| 4.3.6 | S (GB): The torque test is performed using a socket outlet complying with BS 1363 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. | EUT is not direct plug-in type. | **N/A** |
| | S (IE): DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 – National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997. | See above. | **N/A** |
| 4.3.13.6 | C: Add the following note:<br>NOTE Attention is drawn to 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz. Standards taking into account this recommendation are currently under development. | Added. | **N/A** |
| 6.1.2.1 | S (FI, NO, SE): Add the following text between the first and second paragraph:<br>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either<br>- two layers of thin sheet material, each of which shall pass the electric strength test below, or<br>- one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.<br>If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES AND CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition<br>- passes the tests and inspection criteria of 2.10.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.7 shall be performed using 1,5 kV), and<br>- is subject to ROUTINGE TESTING for electric | No TNV circuits provided. | **N/A** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | strength during manufacturing, using a test voltage of 1,5 kV.<br>It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2.<br>A capacitor classified Y3 according to EN 132400:1994, may bridge this insulation under the following conditions:<br>- the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950:2000, 6.2.2.1;<br>- the additional testing shall be performed on all the test specimens as described in EN 132400;<br>- the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400, in the sequence of tests as described in EN 132400. | | |
| 6.1.2.2 | S (FI, NO, SE): The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a service person. | No TNV circuits provided. | **N/A** |
| 7.1 | S (FI, NO, SE): Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM. | No TNV circuit or cable distribution system provided. | **N/A** |
| G.2.1 | S (NO): Due to the IT power distribution system used (see annex V, Fig. V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage, and will remain at 230 V in case of a single earth fault. | Considered. | **N/A** |
| Annex H | C: Replace the last paragraph of this annex by:<br>At any point 10 cm from the surface of the operator access area, the dose rate shall not exceed 1 μSv/h (0,1 mR/h) (see note). Account is taken of the background level.<br>Replace the notes as follows:<br>NOTE These values appear in Directive 96/29/Euratom.<br>Delete Note 2. | Replaced. | **N/A** |
| Annex P | C: Replace the text of this annex by:<br>See annex ZA. | Replaced. | **P** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| Annex Q | C: Replace the title of IEC 61032 by "Protection of persons and equipment by enclosures – Probes for verification".<br><br>Add the following notes for the standards indicated:<br><br>IEC 60127 NOTE Harmonized as EN 60127 (Series) (not modified)<br>IEC 60269-2-1 NOTE Harmonized as HD 630.2.1 S4:2000 (modified)<br>IEC 60529 NOTE Harmonized as EN 60529:1991 (not modified)<br>IEC 61032 NOTE Harmonized as EN 61032:1998 (not modified)<br>IEC 61140 NOTE Harmonized as EN 61140:2001 (not modified)<br>ITU-T Recommendation K.31<br>NOTE in Europe, the suggested document is EN 50083-1. | | **P** |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| Annex ZA | C: NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR RELEVANT EUROPEAN PUBLICATIONS<br><br>This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).<br><br>NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies. | | **P** |

| | |
|---|---|
| — | IEC 60050-151 |
| — | IEC 60050-195 |
| EN 60065:1998 + corr. June 1999 | IEC 60065 (mod):1998 |
| EN 60073:1996 | IEC 60073:1996 |
| HD 566 S1:1990 | IEC 60085:1984 |
| HD 214 S2:1980 | IEC 60112:1979 |
| HD 611.4.1.S1:1992 | IEC 60216-4-1:1990 |
| HD 21 [1)] Series | IEC 60227 (mod) Series |
| HD 22 [2)] Series | IEC 60245 (mod) Series |
| EN 60309 Series | IEC 60309 Series |
| EN 60317-43:1997 | IEC 60317-43:1997 |
| EN 60320 Series | IEC 60320 (mod) Series |
| HD 384.3 S2:1995 | IEC 60364-3 (mod):1993 |
| HD 384.4.41 S2:1996 | IEC 60364-4-41 (mod):1992 [3)] |
| EN 132400:1994 [4)] + A2:1998 + A3:1998 + A4:2001 | IEC 60384-14:1993 |
| EN 60417-1 | IEC 60417-1 |
| HD 625.1 S1:1996 + corr. Nov. 1996 | IEC 60664-1 (mod):1992 |
| EN 60695-2-2:1994 | IEC 60695-2-2:1991 |
| EN 60695-2-11:2001 | IEC 60695-2-11:2000 |
| — | IEC 60695-2-20:1995 |
| — | IEC 60695-10-2:1995 |
| — | IEC 60695-11-3:2000 |
| — | IEC 60695-11-4:2000 |
| EN 60695-11-10:1999 | IEC 60695-11-10:1999 |
| EN 60695-11-20:1999 | IEC 60695-11-20:1999 |
| EN 60730-1:2000 | IEC 60730-1:1999 (mod) |
| EN 60825-1:1994 + corr. Febr. 1995 + A11:1996 + corr. July 1997 | IEC 60825-1:1993 |
| EN 60825-2:2000 | IEC 60825-2:2000 |
| — | IEC 60825-9:1999 |
| EN 60851-3:1996 | IEC 60851-3:1996 |
| EN 60851-5:1996 | IEC 60825-5:1996 |
| EN 60851-6:1996 | IEC 60851-6:1996 |
| — | IEC 60885-1:1987 |
| EN 60990:1999 | IEC 60990:1999 |
| — | IEC 61058-1:2000 |
| EN 61965:2001 | IEC 61965:2000 |
| EN ISO 178:1996 | ISO 178:1993 |
| EN ISO 179 Series | ISO 179 Series |
| EN ISO 180:2000 | ISO 180:1993 |

| IEC 60950-1 / EN 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | — ISO 261:1998<br>— ISO 262:1998<br>EN ISO 527 Series ISO 527 Series<br>— ISO 386:1984<br>EN ISO 4892 Series ISO 4892 Series<br>— ISO 7000:1989<br>EN ISO 8256:1996 ISO 8256:1990<br>— ISO 9772:1994<br>EN ISO 9773:1998 ISO 9773:1998<br>— ITU-T:1988 Recommendation K.17<br>— ITU-T:2000 Recommendation K.21<br>1) The HD 21 series is related to, but not directly equivalent with the IEC 60227 series<br>2) The HD 22 series is related to, but not directly equivalent with the IEC 60245 series<br>3) IEC 60364-4-41:1992 is superseded by IEC 60364-4-41:2001<br>4) EN 132400, Sectional Specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains (Assessment level D), and its amendments are related to, but not directly equivalent to IEC 60384-14 | | |

| 1.5.1 | TABLE: list of critical components | | | | P |
|---|---|---|---|---|---|
| Object/part no. | Manufacturer/ trademark | Type/model | Technical data | Standard | Mark(s) of conformity [1.] |
| **LCD Monitor unit** | | | | | |
| Switching Power Supply with DC/AC inverter board | Lite-on | PTB-1725 | I/P: 100-240Vac, 50/60Hz, 1.3-0.9A; O/P: 5.1Vdc / 3.48A, 20.68Vdc/ 1.74A, 12.08Vdc/ 1.03A (for power supply)<br>I/p: 20.68Vdc, 1.74A; o/p: 2400Vrms, 8.0mA (for DC/AC inverter) | -- | Tested in apparatus |
| Switching Power Supply with DC/AC inverter board | Lite-on | PTB-1806 | I/P: 100-240Vac, 50/60Hz, 1.5A; O/P: 5.32Vdc / 1.9A, 22.64Vdc/ 1.32A (for power supply)<br>I/p: 22.64Vdc, 1.32A; o/p: 2400Vrms, 7.0mA (for DC/AC inverter) | -- | Tested in apparatus |
| LCD Panel | ChungHwa | CLAA201WA03 | 20.1", TFT type, 1680X1050 | -- | -- |
| | AUO | M201EW02 | 20.1", TFT type, 1680X1050 | -- | -- |
| Base stand | -- | -- | Plastic material HB min. cover with metal | UL 94 | UL |
| Metal enclosure | -- | -- | Metal, Thickness min 0.81 mm | -- | -- |
| Plastic Enclosure | LG Chemical | HF-380 | HB, thickness 1.8mm min | UL 94 | UL |
| Mylar sheet between Power supply board component side and metal enclosure | -- | -- | V-2 or better, cover area 170mm by 210mm | UL 94 | UL |

| | | | | | |
|---|---|---|---|---|---|
| Speakers (Two provided) (Optional) | -- | -- | Each 4Ω, 2W max. | -- | -- |
| P.C.B. | -- | -- | V-1, 105°C min | UL 94 | UL |
| **Power supply with DC/AC inverter board: PTB-1725** | | | | | |
| Appliance Inlet (P801) | Solteam | ST-01 | 10A, 250Vac | IEC 60320-1 | VDE, S, D, N, FI, UL, CSA, SEV |
| | Inalways | 0707-1, 0711-2 | 10A, 250Vac | IEC 60320-1 | VDE, S, D, N, FI, UL, CSA, SEV |
| | Duoling | CDJ-3 | 10A, 250Vac | IEC 60320-1 | VDE, S, D, N, FI, UL, CSA, SEV |
| Fuse (F801) | Littelfuse | 215 | T3.15AH, 250Vac | IEC 60127-1 IEC 60127-2 | VDE, S, UL |
| | Bel | 5HT | T3.15AH, 250Vac | IEC 60127-1 IEC 60127-2 | VDE, S, UL |
| X Capacitor (C803, C806) (optional) | Hua Jung | MKP | Max. 0.47 μF, 250Vac | IEC 60384-14/ 1993 | VDE, SEV, UL, CSA, FI |
| | Matsushita | ECQ-UV, ECQUL | Max. 0.47 μF, 250Vac | IEC 60384-14/ 1993 | VDE, SEV, S, N, D, FI, UL, CSA |
| | Pilkor | PCX2 337 | Max. 0.47 μF, 250Vac | IEC 60384-14/ 1993 | VDE, SEV, S, N, D, FI, UL |
| | Teapo | XG-VS | Max. 0.47 μF, 250Vac | IEC 60384-14/ 1993 | VDE, SEV, S, N, D, FI, UL, CSA |
| | Iskra | KNB1560 | Max. 0.47 μF, 250Vac | IEC 60384-14/ 1993 | VDE, UL, CUL |
| | Europtronic | MPX | Max. 0.47 μF, 250Vac | IEC 60384-14/ 1993 | VDE, UL, CUL |
| Y-Capacitor (C802, C808, C805, C836, C838, C839) (Y1 or Y2 type) (optional) | Matsushita | TS, RS, NS-A | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, UL, CSA, FI |
| | Pan Overseas | AC, AH | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, FI, UL, CSA |
| | Success | SF, SE | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, FI, UL, CSA |
| | Success | SB | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, FI, UL, CSA |
| | TDK | CD | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, FI, UL, CSA |

| | | | | | |
|---|---|---|---|---|---|
| | Murata | KX, KD | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, FI, UL, CSA |
| | Dongguan South Hongming | F | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, FI, UL, CSA |
| Ripple Capacitor (C801) | -- | Electrolytic can type | 100-150µF, 400Vmin., 105°C | -- | -- |
| Bleeder Resistor (R802) | -- | Carbon type | 1MΩ, 1/4 W | -- | -- |
| Thermistor (R801) | -- | NTC type | 10 Ω, 5A at 25°C | -- | -- |
| Bridge Diode (D813, D814, D815, D816) | -- | -- | 600V, 2A | -- | -- |
| Current sense resistor (R813) | -- | -- | 0.24Ω, 2W | -- | -- |
| Switching Transistor (Q801) | -- | -- | 600V, 7.5A | -- | -- |
| Power Transformer (T801) | L.S.E | 613106142X (X: 0-9 for marketing purpose) | Class B | Applicable parts in IEC 60950-1 and according to IEC 60085 | Tested with this appliance |
| Line Filter (T802) | LSE | 613800440X (X: 0-9 for marketing purpose) | 130°C | -- | -- |
| | LSE | 613800000X (X: 0-9 for marketing purpose) | 130°C | -- | -- |
| Line Filter (T803) | LSE | 613800440X (X: 0-9 for marketing purpose) | 130°C | -- | -- |
| | LSE | 613800000X (X: 0-9 for marketing purpose) | 130°C | -- | -- |
| DC/AC Inverter Transformer (T101, T102) | LSE | 613102220X (X: 0-9 for marketing purpose) | 130°C | -- | -- |

| | | | | | |
|---|---|---|---|---|---|
| Optocoupler (I802) | LITEON | LTV-817 | Di = 0.4 mm, In = 4.0 mm, Ex = 8.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | LITEON | LTV-816 | Di = 0.6 mm, In = 4.6 mm, Ex = 7.4 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | LITEON | LTV-713 series | Di = 0.4 mm, In = 2.0 mm, Ex = 8.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | NEC | PS 2561 | Di = 0.4 mm, In = 4.0 mm, Ex = 7.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | NEC | PS2581 | Di = 0.4 mm, In = 4.0 mm, Ex = 8.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | NEC | PS2561A-1 series | Di = 0.4 mm, In = 4.0 mm, Ex = 7.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | QT | H11A817A H11A817B H11A817C | Di=0.4 mm, exter creepage = 7.0 mm, thermal cycling, AC 3000V. | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | Sharp | PC123 | Di = 0.7 mm, In = 5.0 mm, Ex = 8.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | Sharp | PC817 | Di = 0.4 mm, In = 5 mm, Ex = 6.4 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | Toshiba | TLP621 | Di=0.8 mm, exter creepage = 8.0 mm, Thermal cycling, AC 3000V. | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | Toshiba | TLP721 | Di = 0.8 mm, In = 4.0 mm, Ex = 8.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |

| | | | | | |
|---|---|---|---|---|---|
| | Toshiba | TLP421 series | Di=0.4 mm, exter creepage = 8.0 mm, Thermal cycling, AC 3000V. | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | Vishay | TCET1100<br>TCET1102<br>TCET1103<br>TCET1107<br>TCET1108<br>TCET1109 | Di = 0.6 mm, In = 4.2 mm, Ex = 8.1 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | Vishay | TCET1103G<br>TCET1107G<br>TCET1108G<br>TCET1109G | Di = 0.7 mm, In = 4.2 mm, Ex = 8.1 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| **Power supply with DC/AC inverter board: PTB-1806** | | | | | |
| Appliance Inlet (P801) | Solteam | ST-01 | 10A, 250Vac | IEC 60320-1 | VDE, S, D, N, FI, UL, CSA, SEV |
| | Inalways | 0707-1, 0711-2 | 10A, 250Vac | IEC 60320-1 | VDE, S, D, N, FI, UL, CSA, SEV |
| | Duoling | CDJ-3 | 10A, 250Vac | IEC 60320-1 | VDE, S, D, N, FI, UL, CSA, SEV |
| Fuse (F801) | Littelfuse | 215 | T3.15AH, 250Vac | IEC 60127-1<br>IEC 60127-2 | VDE, S, UL |
| | Bel | 5HT | T3.15AH, 250Vac | IEC 60127-1<br>IEC 60127-2 | VDE, S, UL |
| X Capacitor (C801, C819) (optional) | Hua Jung | MKP | Max. 0.47 μF, 250Vac | IEC 60384-14/ 1993 | VDE, SEV, FI, UL, CSA |
| | Matsushita | ECQ-UV, ECQUL | Max. 0.47 μF, 250Vac | IEC 60384-14/ 1993 | VDE, SEV, S, N, D, FI, UL, CSA |
| | Pilkor | PCX2 337 | Max. 0.47 μF, 250Vac | IEC 60384-14/ 1993 | VDE, SEV, S, N, D, FI, UL |
| | Teapo | XG-VS | Max. 0.47 μF, 250Vac | IEC 60384-14/ 1993 | VDE, SEV, S, N, D, FI, UL, CSA |
| | Iskra | KNB1560 | Max. 0.47 μF, 250Vac | IEC 60384-14/ 1993 | VDE, UL, cUL |
| | Europtronic | MPX | Max. 0.47 μF, 250Vac | IEC 60384-14/ 1993 | VDE, UL, cUL |
| Y-Capacitor (C808, C820, C825) (Y1 or Y2 type) (optional) | Matsushita | TS, RS, NS-A | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, UL, CSA, FI |
| | Pan Overseas | AC, AH | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, FI, UL, CSA |

| | | | | | |
|---|---|---|---|---|---|
| | Success | SF, SE | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, FI, UL, CSA |
| | Success | SB | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, FI, UL, CSA |
| | TDK | CD | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, FI, UL, CSA |
| | Murata | KX, KD | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, FI, UL, CSA |
| | Dongguan South Hongming | F | 470-4700pF, 250Vac | IEC 60384-14/ 1993 | VDE, FI, UL, CSA |
| Ripple Capacitor (C805) | -- | Electrolytic can type | 100-150µF, 400Vmin., 105°C | -- | -- |
| Bleeder Resistor (R801) | -- | Carbon type | 1MΩ, 1/4 W | -- | -- |
| Thermistor (R802) | -- | NTC type | 10 Ω, 3A at 25°C | -- | -- |
| Bridge Diode (D807, D808, D805, D812) | -- | -- | 600V, 2A | -- | -- |
| Current sense resistor (R811) | -- | -- | 0.39Ω, 2W | -- | -- |
| Switching Transistor (Q803) | -- | -- | 600V, 7A | -- | -- |
| Power Transformer (T801) | L.S.E | 6131053702P | Class B | Applicable parts in IEC 60950-1 and according to IEC 60085 | Tested with this appliance |
| | LI TAI | 6131053702P60 | Class B | Applicable parts in IEC 60950-1 and according to IEC 60085 | Tested with this appliance |
| Line Filter (T802) | DGBullWill | 6138003611P | 130°C | -- | -- |
| | LSE | 6138003601P | 130°C | -- | -- |
| DC/AC Inverter Transformer (T101, T102) | Darfon | 6131020002P00 | 130°C | -- | -- |
| Optocoupler (I802) | LITEON | LTV-817 | Di = 0.4 mm, In = 4.0 mm, Ex = 8.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |

| | | | | | |
|---|---|---|---|---|---|
| | LITEON | LTV-816 | Di = 0.6 mm, In = 4.6 mm, Ex = 7.4 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | LITEON | LTV-713 series | Di = 0.4 mm, In = 2.0 mm, Ex = 8.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | NEC | PS 2561 | Di = 0.4 mm, In = 4.0 mm, Ex = 7.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | NEC | PS2581 | Di = 0.4 mm, In = 4.0 mm, Ex = 8.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | NEC | PS2561A-1 series | Di = 0.4 mm, In = 4.0 mm, Ex = 7.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | QT | H11A817A H11A817B H11A817C | Di=0.4 mm, exter creepage = 7.0 mm, thermal cycling, AC 3000V. | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | Sharp | PC123 | Di = 0.7 mm, In = 5.0 mm, Ex = 8.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | Sharp | PC817 | Di = 0.4 mm, In = 5 mm, Ex = 6.4 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | Toshiba | TLP621 | Di=0.8 mm, exter creepage = 8.0 mm, Thermal cycling, AC 3000V. | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | Toshiba | TLP721 | Di = 0.8 mm, In = 4.0 mm, Ex = 8.0 mm, Min.100°C | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |
| | Toshiba | TLP421 series | Di=0.4 mm, exter creepage = 8.0 mm, Thermal cycling, AC 3000V. | DIN EN 60747-5-2: 2003, IEC 60950-1 | VDE, FI |

| | | | | | |
|---|---|---|---|---|---|
| | Vishay | TCET1100<br>TCET1102<br>TCET1103<br>TCET1107<br>TCET1108<br>TCET1109 | Di = 0.6 mm,<br>In = 4.2 mm,<br>Ex = 8.1 mm,<br>Min.100°C | DIN EN 60747-5-2: 2003,<br>IEC 60950-1 | VDE, FI |
| | Vishay | TCET1103G<br>TCET1107G<br>TCET1108G<br>TCET1109G | Di = 0.7 mm,<br>In = 4.2 mm,<br>Ex = 8.1 mm,<br>Min.100°C | DIN EN 60747-5-2: 2003,<br>IEC 60950-1 | VDE, FI |
| | | | | | |

Note(s):

1. An asterisk indicates a mark that assures the agreed level of surveillance.
2. In Optocoupler technical data column, where “Di” means distance through insulation, “In” means internal creepage distance, “Ex” means external creepage distance.

| 1.6.2 | TABLE: electrical data (in normal conditions) | | | | | **P** |
|---|---|---|---|---|---|---|
| Fuse # | Irated (A) | U(V)/F(Hz) | P (W) | I (A) | Ifuse (A) | Condition/status |
| Power supply with DC/AC inverter board: PTB-1725 | | | | | | |
| F801 | -- | 90/50 | 59.0 | 1.1 | 1.1 | Maximum normal load conditions |
| F801 | -- | 90/60 | 59.0 | 1.1 | 1.1 | Maximum normal load conditions |
| F801 | 1.5 | 100/50 | 57.5 | 1.0 | 1.0 | Maximum normal load conditions |
| F801 | 1.5 | 100/60 | 57.5 | 1.0 | 1.0 | Maximum normal load conditions |
| F801 | 1.5 | 240/50 | 55.6 | 0.54 | 0.54 | Maximum normal load conditions |
| F801 | 1.5 | 240/60 | 55.6 | 0.54 | 0.54 | Maximum normal load conditions |
| F801 | -- | 254/50 | 55.6 | 0.51 | 0.51 | Maximum normal load conditions |
| F801 | -- | 254/60 | 55.6 | 0.51 | 0.51 | Maximum normal load conditions |
| F801 | -- | 264/50 | 55.2 | 0.49 | 0.49 | Maximum normal load conditions |
| F801 | -- | 264/60 | 55.2 | 0.49 | 0.49 | Maximum normal load conditions |
| Power supply with DC/AC inverter board: PTB-1806 | | | | | | |
| F801 | -- | 90/50 | 47.0 | 0.89 | 0.89 | Maximum normal load conditions |
| F801 | -- | 90/60 | 47.0 | 0.90 | 0.90 | Maximum normal load conditions |
| F801 | 1.5 | 100/50 | 47.0 | 0.81 | 0.81 | Maximum normal load conditions |
| F801 | 1.5 | 100/60 | 47.0 | 0.83 | 0.83 | Maximum normal load conditions |
| F801 | 1.5 | 240/50 | 46.0 | 0.42 | 0.42 | Maximum normal load conditions |
| F801 | 1.5 | 240/60 | 46.0 | 0.42 | 0.42 | Maximum normal load conditions |
| F801 | -- | 254/50 | 46.0 | 0.40 | 0.40 | Maximum normal load conditions |
| F801 | -- | 254/60 | 46.0 | 0.40 | 0.40 | Maximum normal load conditions |

| | | | | | | |
|---|---|---|---|---|---|---|
| F801 | -- | 264/50 | 46.0 | 0.39 | 0.39 | Maximum normal load conditions |
| F801 | -- | 264/60 | 46.0 | 0.39 | 0.39 | Maximum normal load conditions |
| Power supply with DC/AC inverter board: PTB-1725 with USB ports | | | | | | |
| F801 | -- | 90/50 | 67.5 | 1.23 | 1.23 | Maximum normal load conditions |
| F801 | -- | 90/60 | 67.3 | 1.24 | 1.24 | Maximum normal load conditions |
| F801 | 1.5 | 100/50 | 66.5 | 1.12 | 1.12 | Maximum normal load conditions |
| F801 | 1.5 | 100/60 | 66.4 | 1.13 | 1.13 | Maximum normal load conditions |
| F801 | 1.5 | 240/50 | 64.0 | 0.57 | 0.57 | Maximum normal load conditions |
| F801 | 1.5 | 240/60 | 64.0 | 0.56 | 0.56 | Maximum normal load conditions |
| F801 | -- | 254/50 | 64.0 | 0.54 | 0.54 | Maximum normal load conditions |
| F801 | -- | 254/60 | 64.0 | 0.54 | 0.54 | Maximum normal load conditions |
| F801 | -- | 264/50 | 64.0 | 0.53 | 0.53 | Maximum normal load conditions |
| F801 | -- | 264/60 | 64.0 | 0.53 | 0.53 | Maximum normal load conditions |
| | | | | | | |
| Note(s): | | | | | | |

| 2.1.1.5 | TABLE: max. V, A, VA test | | | | **N/A** |
|---|---|---|---|---|---|
| Voltage (rated) (V) | Current (rated) (A) | Voltage (max.) (V) | Current (max.) (A) | VA (max.) (VA) | |
| | | | | | |
| | | | | | |
| Note(s): | | | | | |

| 2.1.1.7 | TABLE: discharge test | | | **P** |
|---|---|---|---|---|
| Condition | τ calculated (s) | τ measured (s) | t u→ 0V (s) | Comments |
| Power supply with DC/AC inverter board: PTB-1725 | | | | |
| Line to Neutral | 0.94 | 0.18 | -- | Vpk=354V, 37% of Vpk=131V, after 1 sec voltage drop to 0V |
| Power supply with DC/AC inverter board: PTB-1806 | | | | |
| Line to Neutral | 0.94 | 0.77 | -- | Vpk=368V, 37% of Vpk=136V, after 1 sec voltage drop to 104V |
| | | | | |

| Note(s): |
|---|
| For Power supply with DC/AC inverter board: PTB-1725:<br>Overall capacity: 0.94μF (C803=C806=0.47μF)<br>Discharge resistor: 1MΩ (R802=1MΩ) |
| For Power supply with DC/AC inverter board: PTB-1806:<br>Overall capacity: 0.94μF(C801=C819=0.47μF)<br>Discharge resistor: 1MΩ (R801=1MΩ) |

| 2.2.2 | TABLE: Hazardous voltage measurement | | | **P** |
|---|---|---|---|---|
| Transformer | Location | max. Voltage | | Voltage Limitation Component |
| | | V peak | V d.c. | |
| Power supply with DC/AC inverter board: PTB-1725 | | | | |
| T801 | Pin 9, 10 – Pin 8 | 26.0 | 9.0 | -- |
| T801 | Pin 13 – Pin 8 | 101 | 32.6 | -- |
| | After D805 | 22.8 | 13.7 | D805 |
| T801 | Pin 11 – Pin 8 | 66 | 20.9 | -- |
| | After D807 | 16.8 | 9.9 | D807 |
| Power supply with DC/AC inverter board: PTB-1806 | | | | |
| T801 | Pin 7, 8 – Pin 6 | 31.4 | -- | -- |
| T801 | Pin 10 – Pin 6 | 121.0 | -- | -- |
| | After D809 | -- | 26.4 | D809 |
| | | | | |
| Note(s): Input Voltage is 240Vac, 60Hz | | | | |

| 2.2.3 | TABLE: SEL voltage measurement | **P** |
|---|---|---|
| Location | Voltage measured (V) | Comments |
| Power supply with DC/AC inverter board: PTB-1725 | | |
| +12V output | 0 | When D807 short, the o/p-voltage did not exceed 42.4Vpk. |
| +5V output | 0 | When D805 short, the o/p-voltage did not exceed 42.4Vpk. |
| Power supply with DC/AC inverter board: PTB-1806 | | |
| +20.5V output | 0 | When D809 short, the o/p-voltage did not exceed 42.4Vpk. |
| | | |
| Note(s): Input Voltage is 240Vac, 60Hz | | |

| 2.4.2 | TABLE: limited current circuit measurement | **P** |
|---|---|---|

| Location | Voltage (V) | Current (mA) | Freq. (kHz) | Limit (mA) | Comments |
|---|---|---|---|---|---|
| **Power supply with DC/AC inverter board: PTB-1725** | | | | | |
| With normal condition | | | | | |
| P103 pin 1 – P103 pin 2 | 44 | 22 | 47 | 32.9 | -- |
| P103 pin 1 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P103 pin 2 – Earth | 21.2 | 10.6 | 46 | 32.2 | -- |
| T101 pin 9 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| Single fault condition (D133 shorted) | | | | | |
| P103 pin 1 – P103 pin 2 | 42.2 | 21.1 | 46 | 32.2 | -- |
| P103 pin 1 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P103 pin 2 – Earth | 20.8 | 10.4 | 47 | 32.9 | -- |
| T101 pin 9 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| Single fault condition (R151 shorted) | | | | | |
| P103 pin 1 – P103 pin 2 | 41.2 | 20.6 | 47 | 32.9 | -- |
| P103 pin 1 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P103 pin 2 – Earth | 7.4 | 3.7 | 47 | 32.9 | -- |
| T101 pin 9 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| Single fault condition (Q110 pin 1 to pin 2 shorted) | | | | | |
| P103 pin 1 – P103 pin 2 | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P103 pin 1 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P103 pin 2 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| T101 pin 9 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| Single fault condition (C181 shorted) | | | | | |
| P103 pin 1 – P103 pin 2 | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P103 pin 1 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P103 pin 2 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| T101 pin 9 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| Single fault condition (C185 shorted) | | | | | |
| P103 pin 1 – P103 pin 2 | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P103 pin 1 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P103 pin 2 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| T101 pin 9 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| Single fault condition (C106 shorted) | | | | | |
| P103 pin 1 – P103 pin 2 | 0 | 0 | -- | -- | Unit shut down, no hazards |

| | | | | | |
|---|---|---|---|---|---|
| P103 pin 1 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P103 pin 2 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| T101 pin 9 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| Single fault condition (D136 shorted) | | | | | |
| P103 pin 1 – P103 pin 2 | 52 | 26 | 47 | 32.9 | -- |
| P103 pin 1 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P103 pin 2 – Earth | 4.2 | 2.1 | 51 | 35.7 | -- |
| T101 pin 9 – Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| **Power supply with DC/AC inverter board: PTB-1806** | | | | | |
| Normal condition | | | | | |
| P101 pin1 to pin2 | 38.8 | 19.4 | 47 | 32.9 | -- |
| P101 pin1 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P101 pin2 to Earth | 2.2 | 1.1 | 47 | 32.9 | -- |
| P102 pin1 to pin2 | 42.4 | 21.2 | 47 | 32.9 | -- |
| P102 pin1 to Earth | 42.0 | 21.0 | 47 | 32.9 | -- |
| P102 pin2 to Earth | 0.4 | 0.2 | 1 | 0.7 | -- |
| Single fault condition (D103 short) | | | | | |
| P101 pin1 to pin2 | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P101 pin1 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P101 pin2 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P102 pin1 to pin2 | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P102 pin1 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P102 pin2 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| Single fault condition (C115 short) | | | | | |
| P101 pin1 to pin2 | 38.7 | 19.4 | 47 | 32.9 | -- |
| P101 pin1 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P101 pin2 to Earth | 2.2 | 1.1 | 46 | 32.2 | -- |
| P102 pin1 to pin2 | 41.9 | 21.0 | 47 | 32.9 | -- |
| P102 pin1 to Earth | 42.1 | 21.1 | 47 | 32.9 | -- |
| P102 pin2 to Earth | 0.4 | 0.2 | 1 | 0.7 | -- |
| Single fault condition (R115 short) | | | | | |
| P101 pin1 to pin2 | 39.0 | 19.5 | 47 | 32.2 | -- |
| P101 pin1 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P101 pin2 to Earth | 2.2 | 1.1 | 47 | 32.9 | -- |
| P102 pin1 to pin2 | 42.1 | 21.1 | 47 | 32.9 | -- |

| | | | | | |
|---|---|---|---|---|---|
| P102 pin1 to Earth | 41.9 | 20.1 | 47 | 32.9 | -- |
| P102 pin2 to Earth | 0.4 | 0.2 | 1 | 0.7 | -- |
| Single fault condition (C117 short) | | | | | |
| P101 pin1 to pin2 | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P101 pin1 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P101 pin2 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P102 pin1 to pin2 | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P102 pin1 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P102 pin2 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| Single fault condition (C132 short) | | | | | |
| P101 pin1 to pin2 | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P101 pin1 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P101 pin2 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P102 pin1 to pin2 | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P102 pin1 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P102 pin2 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| Single fault condition (C133 short) | | | | | |
| P101 pin1 to pin2 | 38.4 | 19.2 | 47 | 32.9 | -- |
| P101 pin1 to Earth | 0 | 0 | -- | -- | Unit shut down, no hazards |
| P101 pin2 to Earth | 2.2 | 1.1 | 47 | 32.9 | -- |
| P102 pin1 to pin2 | 42.1 | 21.1 | 47 | 32.9 | -- |
| P102 pin1 to Earth | 42.3 | 21.2 | 47 | 32.9 | -- |
| P102 pin2 to Earth | 0.4 | 0.2 | 1 | 0.7 | -- |
| | | | | | |
| Note(s): Output measured with a 2kΩ non-inductive resistor as load. | | | | | |

| 2.5 | TABLE: limited power source measurement | | P |
|---|---|---|---|
| | Limits | Measured | Verdict |
| **For main board type A, output connector P308 (to key control board), from pin 1 to earth** | | | |
| According to Table 2B (normal condition), Uoc=5.5V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (27.5) | 0.06 | Pass |
| According to Table 2B (R813 shorted in single fault condition), Uoc=5.5V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (27.5) | 0.06 | Pass |

| | | | |
|---|---|---|---|
| According to Table 2B (R817 shorted in single fault condition), Uoc=5.5V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (27.5) | 0.06 | Pass |
| According to Table 2B (I805 pin1-4 shorted in single fault condition), Uoc=5.5V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (27.5) | 0.06 | Pass |
| According to Table 2B (I802 pin1-2 shorted in single fault condition), Uoc=5.5V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (27.5) | 0.06 | Pass |
| **For main board type A, output connector P308 (to key control board), from pin 4 to earth** | | | |
| According to Table 2B (normal condition), Uoc=5.2V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (26) | 0.06 | Pass |
| According to Table 2B (R813 shorted in single fault condition), Uoc=5.2V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (26) | 0.06 | Pass |
| According to Table 2B (R817 shorted in single fault condition), Uoc=5.2V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (26) | 0.06 | Pass |
| According to Table 2B (I805 pin1-4 shorted in single fault condition), Uoc=5.2V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (26) | 0.06 | Pass |
| According to Table 2B (I802 pin1-2 shorted in single fault condition), Uoc=5.2V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (26) | 0.06 | Pass |
| **For main board type A, output connector P306 (to speaker), from pin 2,3,4,5 to earth** | | | |
| According to Table 2B (normal condition), Uoc=2.8V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (14) | 0.05 | Pass |
| According to Table 2B (R813 shorted in single fault condition), Uoc=2.8V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (14) | 0.05 | Pass |
| According to Table 2B (R817 shorted in single fault condition), Uoc=2.8V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (14) | 0.05 | Pass |

| | | | |
|---|---|---|---|
| According to Table 2B (I805 pin1-4 shorted in single fault condition), Uoc=2.8V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (14) | 0.05 | Pass |
| According to Table 2B (I802 pin1-2 shorted in single fault condition), Uoc=2.8V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | Uoc*5 (14) | 0.05 | Pass |
| **Power supply with DC/AC inverter board: PTB-1806** | | | |
| For +20.5Vdc output of power supply with DC/AC inverter board (output to DC/AC inverter) | | | |
| According to Table 2B in normal condition, $U_{OC}$=25V | | | |
| current (in A) | 8 | 3 | Pass |
| apparent power (in VA) | 100 | 53.5 | Pass |
| According to Table 2B in fault condition with D811 short, $U_{OC}$=22.41V | | | |
| current (in A) | 8 | 1.39 | Pass |
| apparent power (in VA) | 100 | 29.54 | Pass |
| According to Table 2B in fault condition with R811 short, $U_{OC}$=[1)] | | | |
| current (in A) | 8 | [1)] | Pass |
| apparent power (in VA) | 5 * Uoc = [1)] | [1)] | Pass |
| According to Table 2B in fault condition with I802 pin1 open, $U_{OC}$=[1)] | | | |
| current (in A) | 8 | [1)] | Pass |
| apparent power (in VA) | 5 * Uoc = [1)] | [1)] | Pass |
| According to Table 2B in fault condition with I802 pin1-pin2 short, $U_{OC}$=[1)] | | | |
| current (in A) | 8 | [1)] | Pass |
| apparent power (in VA) | 5 * Uoc = [1)] | [1)] | Pass |
| According to Table 2B in fault condition with I802 pin4 open, $U_{OC}$=[1)] | | | |
| current (in A) | 8 | [1)] | Pass |
| apparent power (in VA) | 5 * Uoc = [1)] | [1)] | Pass |
| According to Table 2B in fault condition with I802 pin3-pin4 short, $U_{OC}$=[1)] | | | |
| current (in A) | 8 | [1)] | Pass |
| apparent power (in VA) | 5 * Uoc = [1)] | [1)] | Pass |
| **For P310 connector (on main board type B, output to speaker)** | | | |
| According to Table 2B in normal condition, pin 1 to earth $U_{OC}$=2.67V | | | |
| current (in A) | 8 | 2.5 | Pass |
| apparent power (in VA) | 5 * Uoc = 13.35 | 3.8 | Pass |
| According to Table 2B in normal condition, pin 2 to earth $U_{OC}$=2.67V | | | |
| current (in A) | 8 | 2.5 | Pass |

| | | | |
|---|---|---|---|
| apparent power (in VA) | 5 * Uoc = 13.35 | 3.8 | Pass |
| According to Table 2B in normal condition, pin 3 to earth $U_{OC}$=2.67V | | | |
| current (in A) | 8 | 2.4 | Pass |
| apparent power (in VA) | 5 * Uoc = 13.35 | 3.8 | Pass |
| According to Table 2B in normal condition, pin 4 to earth $U_{OC}$=2.67V | | | |
| current (in A) | 8 | 2.4 | Pass |
| apparent power (in VA) | 5 * Uoc = 13.35 | 3.8 | Pass |
| According to Table 2B in fault condition with condition: R811 short/I802 pin1 open/I802 pin1-pin2 short/ I802 pin4 open/I802 pin3-pin4 short, $U_{OC}$=[1)] | | | |
| current (in A) | 8 | [1)] | Pass |
| apparent power (in VA) | 5 * Uoc = [1)] | [1)] | Pass |
| **For P307 connector (on main board type B, output to key control board)** | | | |
| According to Table 2B in normal condition, pin 1 to earth $U_{OC}$=[1)] | | | |
| current (in A) | 8 | [1)] | Pass |
| apparent power (in VA) | 5 * Uoc = [1)] | [1)] | Pass |
| According to Table 2B in normal condition, pin 2 to earth $U_{OC}$=[1)] | | | |
| current (in A) | 8 | [1)] | Pass |
| apparent power (in VA) | 5 * Uoc = [1)] | [1)] | Pass |
| According to Table 2B in normal condition, pin 3 to earth $U_{OC}$=1.98V | | | |
| current (in A) | 8 | 0.02 | Pass |
| apparent power (in VA) | 5 * Uoc = 3.96 | 0.04 | Pass |
| According to Table 2B in normal condition, pin 4 to earth $U_{OC}$=2.66V | | | |
| current (in A) | 8 | 0.01 | Pass |
| apparent power (in VA) | 5 * Uoc = 13.3 | 0.03 | Pass |
| According to Table 2B in normal condition, pin 5 to earth $U_{OC}$=2.66V | | | |
| current (in A) | 8 | 0.01 | Pass |
| apparent power (in VA) | 5 * Uoc = 13.3 | 0.03 | Pass |
| According to Table 2B in fault condition with condition: R811 short/I802 pin1 open/I802 pin1-pin2 short/ I802 pin4 open/I802 pin3-pin4 short, $U_{OC}$=[1)] | | | |
| current (in A) | 8 | [1)] | Pass |
| apparent power (in VA) | 5 * Uoc = [1)] | [1)] | Pass |
| **For USB ports** | | | |
| According to Table 2B in normal condition, $U_{OC}$=5.1V | | | |
| current (in A) | 8 | 0.9 | Pass |
| apparent power (in VA) | 5 * Uoc = 25.5 | 4.19 | Pass |

| According to Table 2B in fault condition with condition: I603 pin5-pin7 short, $U_{OC}$=5.1V | | | |
|---|---|---|---|
| current (in A) | 8 | 0.95 | Pass |
| apparent power (in VA) | 5 * Uoc = 25.5 | 4.17 | Pass |
| | | | |
| Note(s):<br>1) Unit shut down.<br>2) Input Voltage is 240Vac, 60Hz | | | |

| 2.6.3.4 | TABLE: ground continue test | | P |
|---|---|---|---|
| Location | Resistance measured (mΩ) | Comments | |
| **Unit with Power supply with DC/AC inverter board: PTB-1725** | | | |
| The PE pin of AC inlet to the signal cable | 7 | Test current at 25A, for 1 min. | |
| The PE pin of AC inlet to the signal cable | 7 | Test current at 40A, for 2 min. | |
| The PE pin of AC inlet to the earth trace of C802 | 13 | Test current at 25A, for 1 min. | |
| The PE pin of AC inlet to the earth trace of C802 | 13 | Test current at 40A, for 2 min. | |
| **Unit with Power supply with DC/AC inverter board: PTB-1806** | | | |
| AC inlet earth pin to metal enclosure | 15.9 | 25A, 1min | |
| AC inlet earth pin to C825 earthed trace | 16.7 | 40A, 2min | |
| AC inlet earth pin to C825 earthed trace | 13.6 | 25A, 1min | |
| AC inlet earth pin to C808 earthed trace | 17.0 | 40A, 2min | |
| AC inlet earth pin to C808 earthed trace | 15.1 | 25A, 1min | |
| | | | |
| Note(s): | | | |

| 2.10.2 | Table: working voltage measurement | | | P |
|---|---|---|---|---|
| Location | RMS voltage (V) | Peak voltage (V) | Comments | |
| **Power supply with DC/AC inverter board: PTB-1725** | | | | |
| T801 pin 1 to pin 8 | **273** | **588** | Max. Vpeak and Vrms of T801 | |
| T801 pin 1 to pin 9, 10 | 269 | 580 | | |
| T801 pin 1 to pin 11 | 261 | 580 | | |

| | | | |
|---|---|---|---|
| T801 pin 1 to pin 12 | 237 | 620 | |
| T801 pin 1 to pin 13 | 256 | 576 | |
| T801 pin 4 to pin 8 | 214 | 388 | |
| T801 pin 4 to pin 9, 10 | 216 | 396 | |
| T801 pin 4 to pin 11 | 217 | 428 | |
| T801 pin 4 to pin 12 | 165 | 288 | |
| T801 pin 4 to pin 13 | 222 | 464 | |
| T801 pin 6 to pin 8 | 215 | 420 | |
| T801 pin 6 to pin 9, 10 | 216 | 396 | |
| T801 pin 6 to pin 11 | 213 | 376 | |
| T801 pin 6 to pin 12 | 167 | 312 | |
| T801 pin 6 to pin 13 | 213 | 388 | |
| T801 pin 7 to pin 8 | 214 | 372 | |
| T801 pin 7 to pin 9, 10 | 212 | 376 | |
| T801 pin 7 to pin 11 | 214 | 388 | |
| T801 pin 7 to pin 12 | 165 | 268 | |
| T801 pin 7 to pin 13 | 214 | 392 | |
| I802 pin 1 – pin 3 | 216 | 376 | |
| I802 pin 1 – pin 4 | 216 | 376 | |
| I802 pin 2 – pin 3 | 216 | 376 | |
| I802 pin 2 – pin 4 | 216 | 376 | |
| **Power supply with DC/AC inverter board: PTB-1806** | | | |
| T801 pin 1 to pin 6 | **273** | 524 | Highest Vrms of T801 |
| T801 pin 1 to pin 7, 8 | 268 | **532** | Highest Vpk of T801 |
| T801 pin 1 to pin 9 | 261 | 524 | |
| T801 pin 1 to pin 10 | 252 | 516 | |
| T801 pin 3 to pin 6 | 217 | 376 | |
| T801 pin 3 to pin 7, 8 | 217 | 396 | |
| T801 pin 3 to pin 9 | 217 | 436 | |
| T801 pin 3 to pin 10 | 220 | 472 | |
| T801 pin 4 to pin 6 | 217 | 428 | |
| T801 pin 4 to pin 7, 8 | 215 | 416 | |
| T801 pin 4 to pin 9 | 214 | 388 | |
| T801 pin 4 to pin 10 | 214 | 396 | |
| T801 pin 5 to pin 6 | 213 | 372 | |

| | | | |
|---|---|---|---|
| T801 pin 5 to pin 7, 8 | 213 | 376 | |
| T801 pin 5 to pin 9 | 215 | 388 | |
| T801 pin 5 to pin 10 | 217 | 396 | |
| C808 primary to secondary | 213 | 372 | |
| I802 pin 1 to pin 3 | 216 | 376 | |
| I802 pin 1 to pin 4 | 216 | 376 | |
| I802 pin 2 to pin 3 | 216 | 376 | |
| I802 pin 2 to pin 4 | 216 | 376 | |
| | | | |
| Note(s): Input Voltage is 240Vac, 60Hz | | | |

| 2.10.3 and 2.10.4 | TABLE: clearance and creepage distance measurements | | | | | P |
|---|---|---|---|---|---|---|
| Clearance cl and creepage distance dcr at/of: | Up (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required dcr (mm) | dcr (mm) |
| **Power supply with DC/AC inverter board: PTB-1725** | | | | | | |
| **Primary components (with 10N) to earthed metal enclosure** | **420** | **250** | **2.0** | **2.5** | **2.5** | **2.5** |
| T803 to metal stud of earthed metal enclosure | | | | 5.0 | | 5.0 |
| **Primary traces to earthed trace of SPS** | **420** | **250** | **2.0** | **See below** | **2.5** | **See below** |
| Near C803 | | | | 2.5 | | 2.5 |
| Near T802 | | | | 2.5 | | 2.5 |
| Under C802 | | | | 3.3 | | 3.3 |
| Under C808 | | | | 2.5 | | 2.5 |
| Near C806 | | | | 2.7 | | 2.7 |
| D815 trace to earthed trace | | | | 2.8 | | 2.8 |
| Line/neutral trace to earthed trace | | | | 2.0 | | 2.5 |
| **Primary traces to secondary trace of SPS** | **420** | **250** | **4.0** | **See below** | **5.0** | **See below** |
| Under I802 | | | | 4.5 | | 5.0 |
| Under C805 | | | | 7.5 | | 7.5 |
| Under C836 | | | | 7.6 | | 7.6 |
| Under T801 | 588 | 273 | 4.6 | 7.6 | 5.8 | 7.6 |
| Between fuse two ends [1)] | 420 | 250 | 1.5 | 6.0 | 2.5 | 6.0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Primary trace before fuse [1)] | 420 | 250 | 1.5 | 2.9 | 2.5 | 2.9 |
| **Power supply with DC/AC inverter board: PTB-1806** | | | | | | |
| **Primary traces → earthed trace of SPS** | **420** | **250** | **2.0** | **See above** | **2.5** | **See above** |
| Under C820 | | | | 6.8 | | 6.8 |
| Under C825 | | | | 6.8 | | 6.8 |
| Near C819 | | | | 6.7 | | 6.7 |
| Line/neutral trace to earthed trace | | | | 4.0 | | 4.7 |
| **Primary traces → secondary trace of SPS** | **420** | **250** | **4.0** | **See above** | **5.0** | **See above** |
| Under I802 | | | | 5.0 | | 6.1 |
| Under C808 | | | | 7.3 | | 7.3 |
| Under T801 | 532 | 273 | 4.4 | 6.9 | 5.8 | 6.9 |
| Between fuse two ends [1)] | 420 | 250 | 1.5 | 7.2 | 2.5 | 7.2 |
| Primary trace before fuse [1)] | 420 | 250 | 1.5 | 2.5 | 2.5 | 4. 0 |
| | | | | | | |

Note(s):

1. Functional insulation, see clause 5.3.4 a).
2. Other functional insulation according to sub-clause 5.3.4 c).

For Power supply with DC/AC inverter board: PTB-1725

- There is one cut slot (1.2mm x 11.1mm) between Line/Neutral trace and earthed trace of AC inlet.
- There is one cut slot (1.4mm x 7.9mm) under I802 primary and secondary race.
- Glued components: C836, C805, C801.
- There is a mylar sheet (170mm x 210mm min.) between component side of power supply with DC/AC inverter board and metal enclosure type A.

For Power supply with DC/AC inverter board: PTB-1806

- There are two L type slots (1.2mm x 8.5mm x 7.1mm) between Line/Neutral trace.
- There is one cut slot (1.6mm x 7.9mm) under I802 primary and secondary race.
- Glued component: C805.
- There is a mylar sheet (170mm x 210mm min.) between component side of power supply with DC/AC inverter board and metal enclosure type B.

| 2.10.5 | TABLE: distance through insulation measurements | | | | **P** |
|---|---|---|---|---|---|
| Distance through insulation di at/of: | | U r.m.s. (V) | Test voltage (V) | Required di (mm) | di (mm) |
| Photo coupler (reinforced insulation) | | 250 | 3000 | 0.4 | [1)] |
| | | | | | |

Note(s):

[1)] See appended table 1.5.1 for approved component source details.

| 4.5.1 | TABLE: maximum temperatures | | | P |
|---|---|---|---|---|
| | test voltage (V) .....: | a) 90V<br>b) 264V | | — |
| | t1 (°C) .....: | -- | | — |
| | t2 (°C) .....: | -- | | — |
| Maximum temperature T of part/at: | | T (°C) | | allowed $T_{max}$ (°C) |
| Test voltage | | a) | b) | -- |
| **Power supply with DC/AC inverter board: PTB-1725** | | | | |
| AC inlet near line pin | | 46.7 | 46.8 | 70 |
| C803 body | | 53.7 | 51.9 | 85 |
| T802 coil | | 65.8 | 55.4 | 130 |
| T802 core | | 61.5 | 53.9 | 130 |
| T803 coil | | 66.7 | 57.1 | 130 |
| C801 body | | 66.9 | 60.5 | 105 |
| PCB near Q801 | | 80.1 | 77.8 | 105 |
| T801 core | | 62.1 | 58.5 | 110 |
| T801 coil | | 76.0 | 77.4 | 110 |
| I802 body | | 63.0 | 62.0 | 100 |
| T101 coil | | 88.5 | 89.3 | 130 |
| T101 core | | 77.3 | 79.0 | 130 |
| T102 coil | | 92.1 | 92.2 | 130 |
| PCB near D802 | | 81.6 | 83.5 | 105 |
| Plastic enclosure outside near T101 | | 50.4 | 51.1 | 95 |
| Plastic enclosure inside near T101 | | 58.8 | 60.0 | -- |
| Ambient | | 40.0 | 40.0 | -- |
| Ambient during test | | 23.4 | 21.9 | -- |
| **Power supply with DC/AC inverter board: PTB-1806** | | | | |
| Appliance Inlet near line pin | | 49.4 | 48.8 | 70 |
| C819 body | | 64.7 | 59.4 | 85 |
| T802 coil | | 68.8 | 60.7 | 130 |
| C805 body | | 69.4 | 64.3 | 85 |
| T801 coil (class B) | | 93.8 | 94.7 | 110 |

| | | | |
|---|---|---|---|
| T801 core (class B) | 88.0 | 89.2 | 110 |
| C808 body | 77.5 | 75.6 | 85 |
| I802 body | 71.8 | 70.3 | 100 |
| PCB near R808 | 91.3 | 71.8 | 105 |
| T101 coil (DC/AC inverter) | 78.2 | 77.9 | 130 |
| T101 core (DC/AC inverter) | 77.8 | 77.7 | 130 |
| PCB near I306 (main board) | 78.1 | 77.9 | 105 |
| Plastic enclosure inside | 60.4 | 60.1 | -- |
| Plastic enclosure outside | 56.1 | 56.1 | 95 |
| LCD Panel | 50.1 | 50.1 | -- |
| Ambient | 40.0 | 40.0 | -- |
| Ambient during test | 26.5 | 26.4 | -- |
| **Power supply with DC/AC inverter board: PTB-1725 with USB port** | | | |
| Appliance Inlet near line pin | 51.5 | 50.6 | 70 |
| C803 body | 64.2 | 58.5 | 85 |
| T802 coil | 81.5 | 63.8 | 130 |
| T803 coil | 87.1 | 65.9 | 130 |
| C801 body | 78.4 | 67.4 | 85 |
| T801 coil (class B) | 98.6 | 100.7 | 110 |
| T801 core (class B) | 97.6 | 100.0 | 110 |
| I802 body | 72.5 | 69.8 | 100 |
| PCB under R801 | 104.4 | 80.1 | 105 |
| T102 coil | 105.9 | 104.7 | 130 |
| T102 core | 102.1 | 101.8 | 130 |
| PCB near I306 (main board) | 69.0 | 68.5 | 105 |
| Plastic enclosure inside | 58.4 | 57.9 | -- |
| Plastic enclosure outside | 54.6 | 54.1 | 95 |
| LCD Panel | 51.4 | 51.6 | -- |
| Ambient | 40.0 | 40.0 | -- |
| Ambient during test | 26.3 | 26.3 | -- |
| | | | |
| | | | |

| Temperature T of winding: | $R_1$ (Ω) | $R_2$ (Ω) | T (°C) | allowed $T_{max}$ (°C) | insulation class |
|---|---|---|---|---|---|
| | | | | | |
| Note(s): | | | | | |

| |
|---|
| 1. The temperatures were measured under the worse case normal mode defined in 1.2.2.1 and as described in sub-clause 1.6.2 at voltages as described above.<br>2. With a specified ambient temperature of 40°C.<br>3. The maximum temperatures are calculated as follows:<br>Winding components (with safety isolation):<br>- Class B → Tmax = 120 °C - 10 °C = 110°C |

| | | | |
|---|---|---|---|
| 4.5.2 | TABLE: ball pressure test of thermoplastic parts | | **P** |
| | allowed impression diameter (mm) .....: | ≤ 2 mm | — |

| Part | Test temperature (°C) | Impression diameter (mm) |
|---|---|---|
| Power supply with DC/AC inverter board: PTB-1725 | | |
| Bobbin of T802 and T803 / Nan Ya, type 1403G3 (0.75mm) | 125 | 1.2 |
| Power supply with DC/AC inverter board: PTB-1806 | | |
| E I Dupont, type FR530L+ of transformer T801 | 125 | 1.5 |
| | | |
| Note(s): | | |

| 4.6.1, 4.6.2 | Table: enclosure openings | **P** |
|---|---|---|

| Location | Size (mm) | Comments |
|---|---|---|
| Internal metal enclosure type A | | |
| Top | ∅4.5mm | Numerous circle openings, cover area 25mm x 315mm. |
| Rear (left and right side) [2)] | ∅4.5mm | Numerous circle openings, cover area 145mm x 55mm (left side) and 145mm x 55mm (right side). |
| Left Side | ∅4.5mm | Numerous circle openings at an area 23mm 35mm. |
| Right Side | ∅4.5mm | Numerous circle openings at an area 23mm 35mm. |
| Bottom | Ø1.8mm, Central to central: 5.0mm, Thickness: 0.81mm | Numerous circle openings at an area 312mm x 35mm. |
| External plastic enclosure type A | | |
| Top | 3.6mm x 40mm | Numerous rectangle openings cover area 40mm 340mm. |
| Rear | N/A | No openings. |
| Side | N/A | No openings. |

| | | |
|---|---|---|
| Bottom | 3.9mm x 25mm | Numerous rectangle openings cover area 25mm x 130mm and 25mm x 33mm (two blocks). |
| Internal metal enclosure type B | | |
| Top | ∅4.5mm | Numerous circle openings, cover area 34.5mm x 315mm. |
| Rear (left and right side) [2)] | ∅4.5mm | Numerous circle openings, cover area 145mm x 55.5mm. |
| Left Side | ∅4.5mm | Numerous circle openings at an area 25mm 35mm. |
| Right Side | ∅4.5mm | Numerous circle openings at an area 25mm 35mm. |
| Bottom | Ø1.8mm, Central to central: 5.0mm, Thickness: 0.81mm | Numerous circle openings at an area 230mm x 27mm and 25mm x 27mm. |
| External plastic enclosure type B | | |
| Top | 2.6mm x 40mm | Numerous rectangle openings cover area 40mm 340mm. |
| Rear | N/A | No openings. |
| Side | N/A | No openings. |
| Bottom | 3.6m x 25.6mm | Numerous rectangle openings cover area 25.6mm x 130mm and 25.6mm x 31mm (two blocks). |
| | | |

Note(s):
1) The internal metal enclosure was considered as fire enclosure.
2) According to user's manual, the unit can't adjust downward, therefore the rear opening considered as side opening to prevent subjects drop into fire enclosure.
3) The construction of alternative plastic enclosure type C is similar to enclosure shape type A except USB part.

| 4.7 | Table: resistance to fire | | | **N/A** |
|---|---|---|---|---|
| Part | Manufacturer of material | Type of material | Thickness (mm) | Flammability class |
| | | | | |
| | | | | |
| Note(s): Internal metal enclosure was considered as fire enclosure. | | | | |

| 5.1.6 | TABLE: touch current measurement | | | **P** |
|---|---|---|---|---|
| Condition | L→ terminal A (mA) | N → terminal A (mA) | Limit (mA) | Comments |
| Power supply with DC/AC inverter board: PTB-1725 | | | | |

| | | | | |
|---|---|---|---|---|
| System ON (Fuse in) | 1.7 | 1.7 | 3.5 | To metal enclosure/output connector, switch “e” opened. |
| System ON (Fuse out) | 0.02 | 3.4 | 3.5 | To metal enclosure/output connector, switch “e” opened. |
| System ON (Fuse in) | 0.01 | 0.01 | 0.25 | To plastic enclosure with metal foil, switch “e” opened. |
| Power supply with DC/AC inverter board: PTB-1806 | | | | |
| System ON (Fuse in) | 0.19 | 0.20 | 3.5 | To metal enclosure, switch “e” opened. |
| System ON (Fuse in) | 0.19 | 0.20 | 3.5 | To earthed output connector, switch “e” opened. |
| System ON (Fuse in) | 0.01 | 0.01 | 0.25 | To plastic enclosure with metal foil, switch “e” closed. |
| | | | | |

Note(s):
Input voltage: 264V
Input frequency: 60Hz

Overall capacity:
C802=C805=C808=C836=C838=C839=4700pF (Power supply with DC/AC inverter board: PTB-1725);
C808=C820=C825=4700pF (Power supply with DC/AC inverter board: PTB-1806)

| 5.2 | TABLE: electric strength tests and impulse tests | **P** |
|---|---|---|

| Test voltage applied between: | Test voltage (V) | Breakdown |
|---|---|---|
| Power supply with DC/AC inverter board: PTB-1725 | | |
| Unit: primary and secondary | DC 4242 | No |
| Unit: primary and Earth | DC 2651 | No |
| T801: primary and secondary | AC 3000 | No |
| T801: primary and core | AC 1875 | No |
| T801: secondary and core | AC 1875 | No |
| 2 layers of insulation tape | AC 3000 | No |
| Mylar sheet | AC 1500 | No |
| Power supply with DC/AC inverter board: PTB-1806 | | |
| Unit: primary and secondary | DC 4242 | No |
| Unit: primary and earth | DC 2550 | No |
| T801: primary and secondary | AC 3000 | No |
| T801: primary and core | AC 1803 | No |
| T801: secondary and core | AC 1803 | No |
| Two layers of insulation tape of T801 | AC 3000 | No |
| Mylar sheet | AC 1500 | No |

| | | |
|---|---|---|
| Note(s): | | |

| | | | |
|---|---|---|---|
| 5.3 | TABLE: fault condition tests | | P |
| | ambient temperature (°C) ..... : | 25°C, if not otherwise stated | — |
| | model/type of power supply ..... : | See below | — |
| | manufacturer of power supply ..... : | See append table 1.5.1 | — |
| | rated markings of power supply ..... : | See append table 1.5.1 | — |

| No. | Component no. | Fault | Test voltage (V) | Test time | Fuse no. | Fuse current (A) | Result |
|---|---|---|---|---|---|---|---|
| **Power supply with DC/AC inverter board: PTB-1725** | | | | | | | |
| 1 | T801 pin 11 to pin 13 | s-c | 240 | 10 min | F801 | 0.08-0.14 | Unit shut down, no components damaged, no hazards |
| 2 | T801 pin 11 to pin 10 | s-c | 240 | 10 min | F801 | 0.08-0.15 | Unit shut down, no components damaged, no hazards |
| 3 | T801 pin 9 to pin 8 | s-c | 240 | 10 min | F801 | 0.08-0.15 | No display, no components damaged, no hazards |
| 4 | T801 pin 1 to pin 4 | s-c | 240 | 10 min | F801 | 0.08-0.2 | Unit shut down, no components damaged, no hazards |
| 5 | T801 pin 6 to pin 7 | s-c | 240 | 10 min | F801 | 0.08 | Unit shut down, no components damaged, no hazards |
| 6 | D805 | s-c | 240 | 1 sec | F801 | 0.08-0.12 | No display, no components damaged, no hazards |
| 7 | D812 | s-c | 240 | 10 min | F801 | 0.08-0.12 | Unit shut down, no components damaged, no hazards |
| 8 | D807 | s-c | 240 | 10 min | F801 | 0.08-0.13 | Unit shut down, no components damaged, no hazards |
| 9 | C815 | s-c | 240 | 10 min | F801 | 0.08-0.14 | Unit shut down, no components damaged, no hazards |
| 10 | C812 | s-c | 240 | 10 min | F801 | 0.08-0.14 | Unit shut down, no components damaged, no hazards |
| 11 | C823 | s-c | 240 | 10 min | F801 | 0.08-0.12 | Unit shut down, no components damaged, no hazards |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 12 | I802 pin 4 | o-c | 240 | 10 min | F801 | 0.08 | No display, no components damaged, no hazards |
| 13 | I802 pin 1 to pin 2 | s-c | 240 | 10 min | F801 | 0.08 | No display, no components damaged, no hazards |
| 14 | I802 pin 3 to pin 4 | s-c | 240 | 10 min | F801 | 0.08-0.12 | No display, no components damaged, no hazards |
| 15 | Q801 pin G to pin D | s-c | 240 | 1 sec | F801 | 0.02 | Unit shut down, no components damaged, no hazards |
| 16 | Q801 pin G to pin S | s-c | 240 | 10 min | F801 | 0.2 | No display, no components damaged, no hazards |
| 17 | Q801 pin D to pin S | s-c | 240 | 1 sec | F801 | 0.2 | No display, no components damaged, no hazards |
| 18 | C801 | s-c | 240 | 1 sec | F801 | -- | F801 damaged, no hazards. |
| 19 | D802 | s-c | 240 | 1 sec | F801 | -- | F801 damaged, no hazards. |
| 20 | D813 | s-c | 240 | 10 min | F801 | 0.02 | No display, no components damaged, no hazards |
| 21 | T801 pin 13 to pin 8 (after D805) | o-l | 240 | 6.5 hrs | F801 | -- | Overload to 5.0A, no components damaged, T801 coil = 148°C, T801 core = 111°C, ambient = 25°C, no hazards. |
| 22 | T801 pin 11 to pin 8 (after D807) | o-l | 240 | 7.5 hrs | F801 | -- | Overload to 6.0A, no components damaged, T801 coil = 136°C, T801 core = 126°C, ambient = 25°C, no hazards. |
| 23 | T801 pin 10 to pin 8(after D812) | o-l | 240 | 7.0 hrs | F801 | -- | Overload to 8.0A, no components damaged, T801 coil = 138°C, T801 core = 130°C, ambient = 22°C, no hazards. |
| **Power supply with DC/AC inverter board: PTB-1806** | | | | | | | |
| 24 | D808 | s-c | 240 | 1 sec | F801 | -- | F801 opened, no hazards. |
| 25 | C805 | s-c | 240 | 1 sec | F801 | -- | F801 opened, no hazards. |
| 26 | Q803 (D-S) | s-c | 240 | 30 min | F801 | 0.04 | Unit shutdown, I801 and R813 damaged, no hazards. |
| 27 | Q803 (D-G) | s-c | 240 | 30 min | F801 | 0.04 | Unit shutdown, I801 damaged, no hazards. |
| 28 | R811 | s-c | 240 | 30 min | F801 | 0.04 | Unit shutdown, I801 damaged, no hazards. |
| 29 | I802 pin 3 to pin 4 | s-c | 240 | 30 min | F801 | 0.05 | Unit shutdown, Internal protection operated (I801), no hazards. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 30 | I802 pin 1 to pin 2 | s-c | 240 | 30 min | F801 | 0.05 | Unit shutdown, Internal protection operated (I801), no hazards. |
| 31 | I802 pin 4 | o-c | 240 | 30 min | F801 | 0.04 | Unit shutdown, Internal protection operated (I801), no hazards. |
| 32 | I802 pin 1 | o-c | 240 | 30 min | F801 | 0.05 | Unit shutdown, Internal protection operated (I801), no hazards. |
| 33 | D809 | s-c | 240 | 30 min | F801 | 0.04 | Unit shutdown, Internal protection operated (I801), no hazards. |
| 34 | D810 | s-c | 240 | 30 min | F801 | 0.06 | Unit shutdown, Internal protection operated (I801), no hazards. |
| 35 | T801 pin 4 to pin 5 | s-c | 240 | 30 min | F801 | 0.05 | Unit shutdown, Internal protection operated (I801), no hazards. |
| 36 | T801 pin 10 to pin 6 | s-c | 240 | 30 min | F801 | 0.05 | Unit shutdown, Internal protection operated (I801), no hazards. |
| 37 | T801 pin 8,7 to pin 6 | s-c | 240 | 30 min | F801 | 0.06 | Unit shutdown, Internal protection operated (I801), no hazards. |
| 38 | T801 pin 1 to pin 3 | s-c | 240 | 30 min | F801 | 0.07 | Unit shutdown, no components damaged, no hazards. |
| 39 | T801 pin 10 to pin 8,7 | s-c | 240 | 30 min | F801 | 0.1 | Unit shutdown, no components damaged, no hazards. |
| 40 | I801 pin 3 to pin 2 | s-c | 240 | 30 min | F801 | 0.08 | I801 and I802 damaged, no hazards. |
| 41 | +20.5Vdc output | s-c | 240 | 30 min | F801 | 0.04 | Unit shutdown, Internal protection operated (I801), no hazards. |
| 42 | +5Vdc ouptut | s-c | 240 | 30 min | F801 | 0.04 | Unit shutdown, Internal protection operated (I801), no hazards. |
| 43 | T801 pin 7,8 to pin 6 (after D810) | o-l | 240 | 7 hrs | F801 | 0.67 | When overloaded to 5.8A unit shutdown. Temp was stable at 5.4A. Max. temp of T801 coil=79.8ºC, T801 core=71.2ºC, I802 body=39.7ºC, Ambient=26.3ºC, no hazard. Complied sub clause 5.3.8. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 44 | T801 pin 10 to pin 6 (after D809) | o-l | 240 | 15.5 hrs | F801 | 0.66 | When overloaded to 2.8A unit shutdown. Temp was stable at 2.6A. Max. Temp of T801 coil=74.4ºC, T801 core=67.2ºC, I802 body=37.6ºC, Ambient=27.8ºC, no hazard. Complied sub clause 5.3.8. |
| 45 | Ventilation openings (plastic enclosure type A) | Blocked | 240 | 3 hrs | F801 | 0.65 | Temp. was stabled. T801 coil=64.5°C, T801 core=46.6°C, T101 coil=78.6°C, T102 coil=83.2°C, ambient=21.8°C, no hazards. |
| 46 | Ventilation opening (plastic enclosure type B) | blocked | 240 | 1 hr 20 min | F801 | 0.42 | Temperatures were stabled. Max. temp. of T801 coil=84.8°C, T801 core=79.4°C, I802 body=61.3°C, ambient=26.1°C. |
| 47 | Ventilation opening (plastic enclosure type A with USB port | blocked | 240 | 1 hr 50 min | F801 | 0.57 | Temperatures were stabled. Max. temp. of T801 coil=94.1°C, T801 core=93.6°C, I802 body=64.6°C, ambient=26.4°C. |
| | | | | | | | |

Note(s):
1). In fault column, where s-c=short-circuited, o-c=open-circuited, o-l = overload.
2). For fuse opened conditions were tested with each source of fuse.
3). Temp. limited of transformer (class B) according to table C.1 is 175°C -(40°C -25°C)=160°C.

| | | |
|---|---|---|
| C.2 | Safety isolation transformer | **P** |
| | Construction details: | |
| Transformer part name: T801 of Power supply with DC/AC inverter board: PTB-1725 | | |
| Manufacturer: See appended table 1.5.1 | | |
| Type: See appended table 1.5.1 | | |
| | | |
| Recurring peak voltage | 588V | |
| Required clearance for reinforced insulation (from table 2H and 2J) | 4.0mm+0.6mm | |
| | | |
| Effective voltage rms | 273V | |
| Required creepage distance for reinforced insulation (from table 2L with linear interpolation) | 5.8 | |
| | | |

| Measured min. creepage distance | | |
|---|---|---|
| Location | inside (mm) | outside (mm) |
| prim-sec | 6.4 | 6.4 |
| prim-core | 3.2 | 3.2 |
| sec-core | 3.2 | 3.2 |
| prim-prim | -- | -- |
| | | |
| Measured min. clearances | | |
| Location | inside (mm) | outside (mm) |
| prim-sec | 6.4 | 6.4 |
| prim-core | 3.2 | 3.2 |
| sec-core | 3.2 | 3.2 |
| prim-prim | -- | -- |
| | | |
| Construction: | | |
| Concentric windings on ETD-34 (3C90/TP4/PC40) type core (horizontal orientation), three layers insulation tape between primary and secondary windings. Three layers of insulation tape are wrapped on external core surface. Core is considered as floating part. Distance tape is 3.2mm on both sides of transformer bobbin. Winding ends additionally fixed with tape, outer winding is primary. Tubing on all winding exit ends are leaded above the distance tape. | | |
| Pin numbers | | |
| Prim. | 6-7, 1-3-4 | |
| Sec. | 13-11-10, 9-8 | |
| Bobbin | | |
| Material | Phenolic, Chang Chun, T375J, V-0, 150°C | |
| Thickness | min. 0.8mm | |
| | | |
| Electric strength test | | |
| With 3000 V a.c. after humidity treatment | | |
| Result | Pass | |

| C.2 | Safety isolation transformer | **P** |
|---|---|---|
| | Construction details: | |
| Transformer part name: T801 of power supply with DC/AC inverter board: PTB-1806 | | |
| Manufacturer: See appended table 1.5.1 | | |
| Type: See appended table 1.5.1 | | |

| | | |
|---|---|---|
| Remark: All sources of T801 are identical except for model name and manufacture. | | |
| Recurring peak voltage | 532 | |
| Required clearance for reinforced insulation<br>(from table 2H and 2J) | 4.4mm | |
| | | |
| Effective voltage rms | 273 | |
| Required creepage distance for reinforced insulation<br>(from table 2L with linear interpolation) | 5.8mm | |
| | | |
| Measured min. creepage distance | | |
| Location | inside (mm) | outside (mm) |
| prim-sec | 6.4 | 22.0 (pin to pin);<br>6.0 (winding to pin) |
| prim-core | 3.0 | 5.8 (pin to core) |
| sec-core | 3.2 | 5.8 (pin to core) |
| prim-prim | -- | -- |
| | | |
| Measured min. clearances | | |
| Location | inside (mm) | outside (mm) |
| prim-sec | 6.4 | 22.0 (pin to pin);<br>6.0 (winding to pin) |
| prim-core | 3.0 | 5.8 (pin to core) |
| sec-core | 3.2 | 5.8 (pin to core) |
| prim-prim | -- | -- |
| | | |
| Construction:<br>Concentric windings on bobbin (horizontal type core). Three layers insulation tape around outer winding (consider as primary). Three layers insulation tape between primary winding and secondary winding. The core is considered as floating part. Distance tape of bobbin: 3.0mm min. on primary side winding (N1, N5); 3.2mm min. on primary side winding (N6) and all secondary side winding; 3.5mm min. on primary side winding (N2, N3, N4). The bottom side of bobbin (near primary or secondary pin) is further cover with one layer insulation tape. Side of core near primary or secondary pin is further cover with two layers of insulation tape. Tubing on all winding exit ends are leaded above the distance tape. Pin 2 cut off. | | |
| | | |
| Pin numbers | | |
| Prim. | 1-2-3, 4-5 | |
| Sec. | 10-9-8, 7-6 | |
| Bobbin | | |
| Material | EI Dupont, FR530L+, V-0, 155°C | |

| | |
|---|---|
| Thickness | min. 0.8mm |
| | |
| Electric strength test | |
| With 3000 V a.c. after humidity treatment | |
| Result | Pass |

| National Differences | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |

| National Differences | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| APPENDIX | Australian National Differences according to CB Bulletin No. 110A, June 2006 (AS/NZS 60950.1:2003)<br>(IEC Publication 60950-1:2001) | | **P** |
| EXPLANATION FOR ABBREVIATIONS<br>P=Pass, F=Fail, N/A=Not applicable. Placed in the column to the right. | | | |
| **Annex ZZ Variations** | | | |
| 1.2 | Between the definitions for "Person, service" and "Range, rated frequency" insert the following:<br>Potential ignition source 1.2.12.201 | Inserted. | **N/A** |
| 1.2.12.15 | After the definition of 1.2.12.15, add the following:<br>1.2.12.201 Potential ignition source:<br>Possible fault which can start a fire if the open-circuit voltage measured across an interruption or faulty contact exceeds a value of 50 V (peak) a.c. or d.c. and the product of the peak value of this voltage and the measured r.m.s. current under normal operating conditions exceeds 15 VA.<br>Such a faulty contact or interruption in an electrical connection includes those which may occur in conductive patterns on printed boards.<br>NOTE 201: An electronic protection circuit may be used to prevent such a fault from becoming a potential ignition source.<br>NOTE 202: This definition is from AS/NZS 60065:2003. | Added. | **N/A** |
| 1.5.1 | Add the following to the end of first paragraph:<br>"or the relevant Australian/New Zealand Standard." | Added. | **N/A** |
| 1.5.2 | Add the following to the end of first and third dash items:<br>"or the relevant Australian/New Zealand Standard." | Added. | **N/A** |
| 2.1 | Delete the Note. | Deleted. | **N/A** |
| 3.2.3 | Delete Note 2. | Deleted. | **N/A** |
| 3.2.5 | Modify Table 3B as follows: | Modified. | **N/A** |

| Rated current of equipment A | Nominal cross-sectional area $mm^2$ | AWG or kcmil (cross-sectional area in $mm^2$) see note 2 |
|---|---|---|
| Over 0.2 up to and including 3 | 0.5[1)] | 18 [0.8] |

| National Differences | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| | Over 3 up to and including 7.5 | 0.75 | 16 [1.3] | | |
| | Over 7.5 up to and including 10 | (0.75)[2] 1.00 | 16 [1.3] | | |
| | Over 10 up to and including 16 | (1.0)[3] 1.5 | 14 [2] | | |
| | Replace footnote 1) with the following:<br>[1] This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliances, and the entry to the plug does not exceed 2 m (0.5 mm² three-core supply flexible cords are not permitted; see AS/NZS 3191).<br>Delete Note 1. | | | | |
| 4.3.6 | Replace paragraph three with:<br>Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet complying with AS/NZS 3112, shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets. | | | Replaced. | **N/A** |
| 4.3.13.5 | Add the following to the end of the first paragraph:<br>", or AS/NZS 2211.1" | | | Added. | **N/A** |
| 4.7 | Add the following paragraph:<br>For alternative tests refer to clause 4.7.201. | | | See below. | **N/A** |
| 4.7.201 | Add the following after clause 4.7.3.6:<br>4.7.201 Resistance to fire - Alternative tests | | | Added.<br>However, equipment under test and materials and components in compliance with requirements of IEC 60950-1. Alternative test methods were not considered. | **N/A** |
| 4.7.201.1 | General<br>Parts of non-metallic material shall be resistant to ignition and spread of fire.<br>This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames originating from inside the apparatus, or the following:<br>(a) Components that are contained in an enclosure having a flammability category of FV-0 according to AS/NSZ 4695.707 and having openings only for the connecting wires filling the openings completely, and for the | | | See above. | **N/A** |

| National Differences | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | ventilation not exceeding 1 mm in width regardless of the length.<br>(b) The following parts which would contribute negligible fuel to a fire:<br>- small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings;<br>- small electrical components, such as capacitors with a volume not exceeding 1750 $mm^3$, integrated circuits, transistors and optocoupler packages, if these components are mounted on material flammability category FV-1 or better according to AS/NZS 4695.707<br>NOTE - In considering how to minimize propagation of fire and what "small parts" are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating fire from one part to another.<br>Compliance is checked by tests of 4.7.201.2, 4.7.201.3, 4.7.201.4 and 4.7.201.5.<br>For the base materials of printed boards, compliance is checked by the test of 4.7.201.5.<br>The tests shall be carried out on parts of non-metallic material, which have been removed from the apparatus. When the glow-wire test is carried out, the parts shall be placed in the same orientation, as they would be in normal use.<br>These tests are not carried out on internal wiring. | | |
| 4.7.201.2 | Parts of non-metallic material are subjected to glow wire test of AS/NZS 4695.2.11, which is carried out at 550 °C.<br>Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glow-wire test shall be not carried out on parts of materials classified at least FH-3 according to ISO 9772 provided that the sample was not thicker than the relevant part. | See above. | **N/A** |
| 4.7.201.3 | Testing of insulating materials<br>Parts of insulating materials supporting potential ignition sources shall be subject to the glow-wire test of AN/NZS 4695.2.11, which is carried out at 750 °C.<br>The test shall be also carried out on other parts of | See above. | **N/A** |

| National Differences | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | insulating material which are within a distance of 3 mm of the connection.<br><br>NOTE - Contacts in components such as switch contacts are considered to be connections.<br><br>For parts, which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test shall not be tested.<br><br>The needle-flame test shall be made in accordance with AS/NZS 4695.2.2 with the following modifications:<br><br>**5 Severities**<br><br>Replace with:<br><br>The duration of application of the test flame shall be 30 s ± 1 s.<br><br>**8 Test procedure**<br><br>8.2 Modification:<br><br>Replace the first sentence with:<br><br>The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1.<br><br>8.4 Modification:<br><br>The first paragraph does not apply.<br><br>Addition:<br><br>If possible, the flame shall be applied at least 10 mm from a corner.<br><br>8.5 Replacement:<br><br>The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall then withstand the test.<br><br>**10 Evaluation of test results**<br><br>Replace with:<br><br>The duration of burning ($t_b$) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.<br><br>The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 | | |

| National Differences | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | according to IEC 60695-11-10, provided that the sample tested was not thicker than the relevant part. | | |
| 4.7.201.4 | Testing in the event of non-extinguishing material<br><br>If parts, other than enclosures, do not withstand the glow-wire tests of 4.7.201.3, by failure to extinguish within 30 s after the removal of the glow-wire tip, the needle-flame test detailed in 4.7.201.3 is made on all parts of non-metallic material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of 4.7.201.3. Parts shielded by a separate barrier which meets the needle-flame test need not to be tested.<br><br>NOTE 1 - If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirement of clause 4.7.201 without the need for consequential testing.<br><br>NOTE 2 - If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burring or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirement of clause 4.7.201 without the need for consequential testing.<br><br>NOTE 3 - Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting in contact with or in close proximity to connections. | See above. | **N/A** |
| 4.7.201.5 | Testing of printed boards<br><br>The base material of printed boards is subjected to needle-flame test to Clause 4.7.201.3. The flame is applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge, consisting of broken perforations, unless the edge is less than 3 mm for a potential ignition source.<br><br>The test is not carried out if the –<br>- Printed board does not carry any potential ignition source;<br>- Base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V | For PCB material refer to table 1.5.1 of IEC 60950-1 test report. | **N/A** |

| National Differences | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | (peak) a.c. or d.c. under normal operating conditions, is of flammability category FV-1 or better according to AS/NZS 4695.707, or the printed boards are protected by an enclosure meeting the flammability category FV-0 according to AS/NZS 4695.707, or made of metal, having openings only for connecting wires which fill the opening completely, or<br>- Base material of printed boards, on which the available apparatus power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material printed boards supporting spark gaps which provide protection against overvoltages, is of flammability category FV-0 according to AS/NSZ 4695.707 or the printed boards are contained in a metal enclosure, having openings only for connecting wires fill the openings completely.<br>Compliance is determined using the smallest thickness of the material.<br>NOTE - Available apparent power is the maximum apparent power, which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximise the apparent power for more than 2 min when the circuit supplied is disconnected. | | |
| 6.2.2 | Add the following after the first paragraph:<br>In Australia (this variation does not apply in New Zealand), compliance with 6.2.2 is checked by the tests of both 6.2.2.1 and 6.2.2.2.<br>Delete the note. | No TNV circuit. | **N/A** |
| 6.2.2.1 | Delete Note 2.<br>Add the following after the first paragraph:<br>In Australia (this variation does not apply in New Zealand), the electrical separation is subjected to 10 impulses of alternating polarity, using the impulse test generator of annex N for 10/700 μs impulses. The interval between successive impulses is 60 s and the initial voltage, Uc, is:<br>- for 6.2.1 a):<br>7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment; and<br>- for 6.2.1b) and 6.2.1c):<br>1.5 kV. | No TNV circuit. | **N/A** |

| National Differences | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| | NOTE 201 - The 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines.<br>NOTE 202 – The 2.5 kV impulse for 6.2.1a) was chosen to ensure adequacy of the insulation concerned and does not necessarily simulate likely overvoltages. | | |
| 6.2.2.2 | Delete the note.<br>Add the following after the second paragraph:<br>In Australia (this variation does not apply in New Zealand), the a.c. test voltage is:<br>- for 6.2.1a): 3 kV; and<br>- for 6.2.1b) and 6.2.1c): 1.5 kV.<br>NOTE 201 – Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used.<br>NOTE 202 – The 3 kV and 1.5 kV values have been determined considering the low frequency induced voltages from the power supply distribution system. | No TNV circuit. | **N/A** |
| Annex P | Add the following Normative References to Annex P:<br>IEC 60065, Audio, Video and similar electronic apparatus - Safety requirements<br>AS/NZS 3112, Approval and test specification - Plugs and socket-outlets<br>AS/NZS 3191, Approval and test specification - Electric flexible cords<br>AS/NZS 4695.707, Fire hazard testing of electrotechnical products - Methods of test for the determination of the flammability of solid electrical insulating materials when exposed to an igniting source | Added. | **N/A** |

| National Differences | | | |
|---|---|---|---|
| Clause | Requirement – Test | Result – Remark | Verdict |
| APPENDIX | Korean National Differences according to CB Bulletin No. 110A, June 2006 (K60950)<br>(IEC Publication 60950-1:2001) | | **P** |
| EXPLANATION FOR ABBREVIATIONS<br>P=Pass, F=Fail, N/A=Not applicable. Placed in the column to the right. | | | |
| 1.5.101 | Addition:<br>Plugs for the connection of the apparatus to the supply mains shall comply with the Korean requirement (KSC 8305). | No power supply cords provided. | **N/A** |
| 7 | Addition: EMC<br>The apparatus shall comply with the relevant CISPR standards. | Compliance shall be evaluated during national approval. | **N/A** |